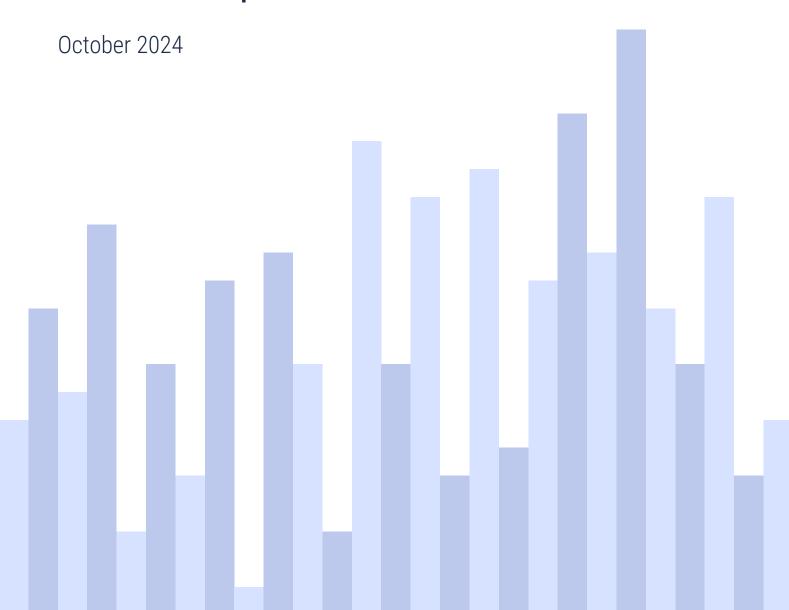
# Somalia Harmonised Health Facility Assessment 2022-2023

# **National Report**



#### **Forward**

The Harmonized Health Facility Assessment (HHFA) 2023 marks a significant step in Somalia's efforts to strengthen healthcare delivery and ensure equitable access to essential services. The Federal Ministry of Health, with support from the World Health Organization (WHO) and other partners, is committed to achieving Universal Health Coverage (UHC) and the health-related Sustainable Development Goals.

Primary healthcare remains the cornerstone of our health system, with a focus on reaching the most vulnerable populations. Informed by reliable data, our policies aim to address gaps in service availability and ensure access to life-saving care. Over the years, household surveys and health facility assessments have provided critical insights into the state of healthcare in Somalia. Building on this, the HHFA offers a comprehensive tool for evaluating service availability, readiness, and quality across the country.

In 2022, Somalia adopted WHO's HHFA methodology, which provides a standardized approach to assessing health service capacity. This tool helps us measure and improve service delivery, guiding our efforts to enhance healthcare quality and ensure resources are directed where they are needed most. The HHFA evaluates health services through four key modules—service availability, service readiness, quality of care, and management and finance—providing a detailed overview of our health facilities' capabilities.

The success of this assessment is a testament to the collaborative efforts of the Ministry of Health, WHO, UNICEF, and other international and local partners. Their support has been invaluable in collecting, analyzing, and applying the data needed to strengthen Somalia's healthcare system.

We believe that the insights from the HHFA 2023 will serve as a foundation for further progress in healthcare delivery, ensuring that every Somali has access to quality health services. As we move forward, this data will be critical in guiding our efforts to achieve a more resilient and equitable health system.

In conclusion, I would like to express my gratitude to the entire HMIS team at both the Federal and State levels for leading the process and conducting the HHFA assessment in close collaboration with the WHO country office.

Dr Ali Haji Adam

Minister, Ministry of Health & Human Services. Federal Government of Somalia.

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## **Summary of key findings**

## **Health facility infrastructure and amenities**

- 1,215 operational health facilities were documented during the HHFA.
- Health centres are the most common facility type (606), followed by primary health units (231), and private clinics (200).
- 69% of facilities are primary care facilities, including health centres or primary health units. (If private clinics are included as primary care facilities, 85% of facilities are primary care facilities.).
- 13% of facilities are hospitals, including national referral hospitals, regional hospitals, district hospitals, and speciality hospitals.
- There is a greater proportion of private facilities in Banadir than in other states. 42% of facilities in Banadir are private clinics, compared to 16% across all six states.
- The proportion of facilities that are primary health units varies by state. Puntland (37%), Galmudug (34%), and Jubaland (24%) having a greater proportion of primary health units than South West (9%), Hirshabelle (4%), and Banadir (0%).
- 53% of facilities are managed by the government or Ministry of Health (MoH), 25% are managed by non-governmental organisations (NGOs), and 21% are managed by private for-profit organisations.
- Almost all (99%) national referral hospitals, regional hospitals, district hospitals, health centres, and primary health units are managed by the government/MoH or by an NGO. Almost all (94%) speciality hospitals and private clinics are managed by private for-profit organisations.
- Across the six states, there are 0.69 health facilities of any type per 10,000 people, with 0.58 primary care facilities and 0.1 hospitals per 10,000 people (equivalent to one health facility for every 14,400 people, one primary care facility for every 17,200 people, and one hospital for every 98,000 people).
- Hirshabelle has the highest health infrastructure density (0.9 facilities per 10,000 people), while Galmadug has the lowest (0.58 facilities per 10,000 people).
- 41% of facilities reported having electricity from any source, 67% have an improved water source, 56% have access to improved sanitation facilities for clients, 21% have a computer with internet, and 23% have an emergency transportation system for patients.
- Not all facilities had basic equipment in the main service area of the facility. 72% of facilities had a stethoscope, 70% had a blood pressure apparatus, and 69% had a thermometer.

## **Health workforce**

- Across the six states, there are 3.0 physicians, 1.1 non-physician paramedical practitioners, 3.9 nurses and nurse-midwives, and 1.5 midwives per 10,000 people, equivalent to one physician for every 3,400 people, one nurse or nurse-midwife for every 2,500 people, and one midwife for every 6,500 people.
- When combining physicians, non-physician paramedical practitioners, nurses, nurse-midwives, and midwives, there are 7.9 health workers per 10,000 people, equivalent to one health worker for every 1,300 people.
- Health worker density varies considerably by state. The combined core health worker density per 10,000 people is 17.0 in Banadir, 10.1 in Puntland, 8.1 in Hirshabelle, 5.5 in Jubaland, 4.9 in South West, and 2.6 in Galmudug. Banadir has one physician for every 1.400 people, while Galmudug has one physician for every 20,000 people.
- There are 0.18 anesthesiologists, 0.21 obstetricians, 0.17 paediatricians, and 0.33 surgeons per 10,000 people. As for non-specialist health workers, the density of specialist health workers varies by state.

## **Essential medicines**

- The availability of essential medicines at facilities varied considerably by the specific medicine and by facility type.
- The most commonly available medicines were folic acid (65% of facilities), amoxicillin (63%), zinc sulphate (62%), oral rehydration solution (58%), ibuprofen (57%), and paracetamol (52%). The remaining 22 out of 29 essential medicines were available at fewer than 50% of health facilities.
- National referral hospitals had an average of 52% of the 29 essential medicines (15 out of 29 medicines), regional hospitals had an average of 55% (16 out of 29 medicines) and district hospitals had an average of 49% (14 out of 29 medicines).
- Health centres had an average of 28% of the 29 essential medicines (8 out of 29 medicines) and primary health units had an average of 14% (4 out of 29 medicines).
- Private speciality hospitals had an average of 63% of the 29 essential medicines (19 out of 29 medicines) and private clinics had an average of 56% (16 out of 29 medicines).
- The most commonly available essential medicines (folic acid, amoxicillin, zinc sulphate, oral rehydration solution) were still only available at 75% of public hospitals (national referral hospitals, regional hospitals, and district hospitals) and 50% of health centres.
- Only seven medicines were available at more than 20% of primary health units: aspirin (25%), paracetamol (36%), ibuprofen (41%), amoxicillin (49%), oral rehydration solution (44%), zinc (53%), and folic acid (52%).
- There was relatively little difference in the availability of essential medicines across states.

## Reproductive, maternal, newborn, and child health and nutrition

- 63% of facilities reported offering antenatal care, 45% reported offering delivery/childbirth services, and 57% reported offering postnatal care for pregnant women and newborns.
- Delivery/childbirth care is available at 82% of public hospitals (national referral hospitals, regional hospitals, and district hospitals), 55% of health centres, 65% of private speciality hospitals, and 42% of private clinics.
- Only a minority of primary health units offer any outpatient services for antenatal care (39%), postpartum care (18%), family planning (4%), or post-abortion care (10%).
- Family planning services are not as widely available as other maternal health services and more often available at private facilities. Only 21% of public facilities offer family planning, while 46% of private for-profit facilities offer family planning.
- Caesarean section is offered at 75% of national referral hospitals, 67% of regional hospitals, and 57% of district hospitals.
- Only 13% of facilities reported offering all 7 signal functions required for basic emergency obstetric and newborn care (BEmONC). Only 9% of facilities reported offering all 9 signal functions required for comprehensive emergency obstetric and newborn care (CEmONC).
- Only two-thirds of facilities that offer delivery care had the necessary supplies and equipment to provide basic emergency obstetric care if needed: 61% had magnesium sulphate for pre-eclampsia/eclampsia, 64% had injectable antibiotics for maternal sepsis, and 67% had injectable uterotonics for post-partum haemorrhage.
- Only a minority of health facilities offer basic outpatient services for childhood diarrhea (45%), pneumonia (42%), and malaria (41%). Only 33%, 23%, and 17% of primary health units are providing these services, respectively.
- 39% of facilities reported offering diagnosis or treatment of malnutrition in children under 5. Ready-to-use therapeutic foods (RUTFs) are not often stocked, with only 37% of facilities that offer child preventative and curative care services having RUTFs.

- Childhood immunization services are available at 62% of public hospitals, 68% of health centres, and 17% of primary health units.
- Fewer private hospitals and clinics offer childhood immunization services than public facilities, with only 18% of speciality hospitals and 13% of private clinics offering any childhood immunization services.

## Infectious diseases

- Across the six states, 69% of facilities reported offering any malaria services, and 61% reported offering malaria treatment.
- 43% of primary health units offer any malaria services, with only 25% of primary health units providing malaria treatment.
- Only 56% of facilities that reported offering malaria services had first-line antimalarials to treat malaria. Only 17% of primary health units that offer malaria services had first-line antimalarials to treat malaria.
- 11% of facilities reported offering any services for tuberculosis (TB). Only 39% and 20% of these facilities had all first-line TB medicines to treat adults and children, respectively.
- 32% of facilities reported offering HIV testing and counselling, 6% offering HIV care and support services, and 7% offering any anti-retroviral therapy (ART) services for life-long treatment of HIV.
- Services for HIV are mostly only available at higher-level facilities, with 72% of public hospitals offering HIV testing and counselling compared to 23% of health centres.
- Only a small minority of facilities reported offering services for any neglected tropical diseases, with 18% of facilities offering services for soil-transmitted helminthic diseases, 17% for lymphoedema, and 16% for schistosomiasis.

## Non-communicable diseases

- 29% of facilities reported offering any services for cardiovascular disease, 29% for diabetes, 24% for asthma, 16% for chronic obstructive pulmonary disorder (COPD), 6% for any cancers, and 12% for mental health and neurological disorders.
- Services for non-communicable diseases (NCDs) are mostly only offered at hospitals and private clinics. Almost no primary health units (PHUs) offer even basic services for any non-communicable disease. Only 3% of PHUs offer services for diagnosis and treatment of hypertension, 3% offer diagnosis of diabetes, and 3% offer diagnosis and treatment of asthma
- Among public hospitals (national referral hospitals, regional hospitals, and district hospitals), 63% reported offering services for cardiovascular disease, 62% for diabetes, 46% for asthma, 37% for COPD, and 30% for mental health and neurological disorders.
- Even at hospitals, services for cancers are rarely offered (8% of public hospitals and 19% of private speciality hospitals).
- Private facilities (speciality hospitals and private clinics) are generally more likely to offer services for NCDs than public hospitals or health centres.
- Not all facilities that reported offering services for NCDs had the necessary supplies and equipment to treat or manage the conditions. 67% of facilities that offer cardiovascular services had aspirin, and fewer than 50% had calcium channel blockers, beta blockers, ACE inhibitors, hydrochlorothiaziade, or statin. 62% of facilities that offer diabetes services had metformin, 60% had injectable glucose, and 47% had regular injectable insulin.
- Fewer than 40% of health centres that offer diabetes services, and fewer than 25% of primary health units that offer diabetes services, had diagnostic tests for diabetes.

## **Emergency and critical care**

- 69% of public hospitals (national referral hospitals, regional hospitals, and district hospitals) offer emergency services on first entry to the facility.
- 48% of public hospitals have 24-hour medical and nursing staff onsite in an emergency unit.
- 3% of all facilities (9% of public hospitals) have 24-hour availability of medicines in or near an emergency unit.

## **Surgery**

- Minor surgical procedures are offered at 81% of public hospitals (national referral hospitals, regional hospitals, and district hospitals), 74% of speciality hospitals, and 57% of private clinics, with these facilities offering wound debridement, suturing of laceration, acute burn management, and incision and drainage of abscesses.
- Only 16% of health centres and 12% of primary health units offer any minor surgery.
- Among facilities that offer minor surgery, 78% had suture needles and thread, 78% had sterile latex gloves, 64% had lidocaine, and 61% had skin disinfectant.
- Major surgical procedures are offered at 51% of public hospitals, 70% of speciality hospitals, and 42% of private clinics.
- At public hospitals, caaesarean section is the most commonly available major surgery procedure (60%), followed by irrigation and debridement of open fractures (25%), appendectomy (23%), and amputation (21%).
- Among facilities that offer major surgery, 45% had an anesthesia machine, 41% had a cardiac monitor and ECG electrodes, 29% had adult intubation equipment, 21% had a defibrillator, and 17% had oxygen with administration equipment.

## **Laboratory services**

- Around 75% of public hospitals (national referral hospitals, regional hospitals, and district hospitals) and 90% of speciality hospitals are able to conduct onsite diagnostic testing for conditions including malaria, pregnancy, diabetes, HIV, and syphilis.
- Private facilities are better equipped for onsite diagnostic testing than government/MoH-managed or NGO-managed facilities, with 81% of speciality hospitals able to conduct haemoglobin testing, but only 60% of public hospitals able to conduct haemoglobin testing.
- 33% of facilities with laboratory services had evidence of a record of specimens received and results recorded.
- While 83% of facilities with laboratory services had appropriate storage of sharps waste, only a minority had appropriate storage of non-sharp infectious waste (47%) and biological waste (37%).

## Management and governance

- Half of all facilities have a facility management committee (50%) and a system for eliciting community input into facility management decisions (49%).
- 40% of facilities have routine maintenance systems for any facility vehicles, 27% for the water system, 25% for sanitation and sewage systems, and 24% for the electrical system.
- User fees are mostly only charged at private for-profit facilities (51%), and rarely at government/MoH-managed facilities (3%) or NGO-managed facilities (5%).
- 45% of facilities have designated fulltime staff for managing data and reporting, including 68% of public hospitals (national referral hospitals, regional hospitals, and district hospitals), 48% of health centres, and 27% of primary health units.

## **Background**

#### **Health systems strengthening**

The Ministry of Health of Somalia aims to strengthen health care delivery and ensure equitable access to basic health care for all men, women, and children across Somalia. Primary health care is the foundation of the country's health system, with a focus on essential, life-saving services for the poor and vulnerable and protecting households from the risk of impoverishment due to out-of-pocket spending on health care.

Over the years, data from various household surveys and health facility assessments have been used to measure the availability and access to health care, and the health status of the Somali population. The data from these sources have informed policy decisions and interventions to strengthen health delivery. The data from these surveys provided valuable information on the status of health facilities in the country. Data on service availability and readiness, across the country and at all levels of the health system, is essential for identifying gaps in service delivery, and there is continued a need for innovative methods of data collection to provide more comprehensive data to assess health service delivery in Somalia.

#### **The Harmonized Health Facility Assessment**

Health facility assessments are the gold-standard data collection methodology for generating information on service availability, readiness, and quality of care. In 2022, Somalia adopted the WHO Harmonized Health Facility Assessment (HHFA), which provides an approach for conducting a comprehensive assessment of health service availability, readiness and quality of care to further strengthen its efforts towards achieving Universal Health Care (UHC). The HHFA is a comprehensive, standardised health facility survey that provides reliable and objective information on the availability of health services and the capacities of facilities to deliver the services effectively.

The availability and readiness of health services is integral to achieving UHC and the health-related Sustainable Development Goals (SDGs). HHFA data can support health sector reviews and evidence-based decision-making for strengthening country health services. The HHFA builds on previous and existing global facility survey instruments and uses standardised indicators, questionnaires, data collection methodologies and data analysis tools through multistakeholder collaboration.

The HHFA covers all key facility services and facility-level management systems. Its content is organised into four modules: service availability; service readiness; quality of care; and management and finance. Each HHFA module includes a set of stand-alone questionnaires that may be designated Core, Core + Additional and/or Supplementary. The combined questionnaire contains questions from multiple modules, integrated and organised to facilitate data collection. The questionnaire was adapted to fit the needs of the Ministry of Health and stakeholders in Somalia.

More information about the Harmonized Health Facility Assessment (HHFA) can be found on the WHO website at this address: https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment

#### Survey methodology

The Somalia HHFA is the collective effort of a multi-partner group that included the Ministry of Health, WHO, UNICEF, and other partners. The data collection methodology used for this HHFA was a facility audit with key informants and observation for availability, readiness, management and finance. As part of this harmonized approach, efforts were made to bring together existing indicators with a standard set of indicator definitions, questionnaires and recommended assessment/measurement methods. The HHFA questions were organized into three main topic areas: service availability, service readiness, and management and finance.

The HHFA was a cross-sectional survey and covered six states and all health facility levels in Somalia. The latest WHO HHFA tool was used to ensure the deployment of a standardized and tested questionnaire. Somalia implemented the availability, readiness, management and finance modules using the facility audit methodology. These modules were used to collect information on the physical presence of facilities, resources, services, capacity to provide specific services, and management practices to support continuous service availability and quality. Data collection involved interviews and observations as required in the specific modules of the questionnaire.

The survey encompassed all approved/licensed health facilities across Somalia, both public and private, including national referral hospitals, regional hospitals, district hospitals, speciality hospitals, health centres, private clinics, and primary health units.

## **Results**

## Health facility infrastructure and amenities

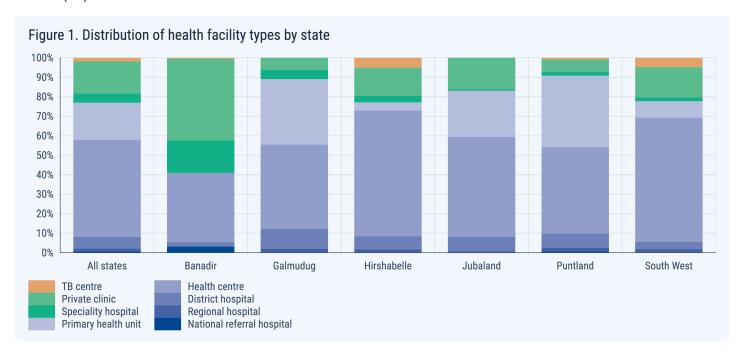
#### Location of health facilities

Across the six states visited during the HHFA, the survey team documented 1,215 operational health facilities. Table 1 shows the number and distribution of health facilities across the states by facility type. Health centres were the most common facility type, with 606 documented across the six states. Primary health units (PHUs) were the next most common (231 across the six states), followed by private clinics (200 across the six states).

	National referral hospital	Regional hospital	District hospital	Health centre	Primary health unit	Speciality hospital	Private clinic	TB centre	Total
Banadir	6	1	4	73	0	34	86	1	205
Galmudug	0	3	15	63	49	7	9	0	146
Hirshabelle	0	2	8	76	5	4	17	6	118
Jubaland	0	1	12	82	38	1	26	0	160
Puntland	2	6	23	140	116	6	20	3	316
South West	0	5	10	172	23	5	42	13	270
Total	8	18	72	606	231	57	200	23	1,215

The distribution of facility types, shown in Figure 1, reveals the Somalia health system's focus on primary health care. Across the six states, 69% of facilities are health centres or primary health units. 85% of facilities are health centres, primary health units, or private clinics. Only 13% of facilities are hospitals of any type, including national referral hospitals, regional hospitals, district hospitals, or speciality hospitals.

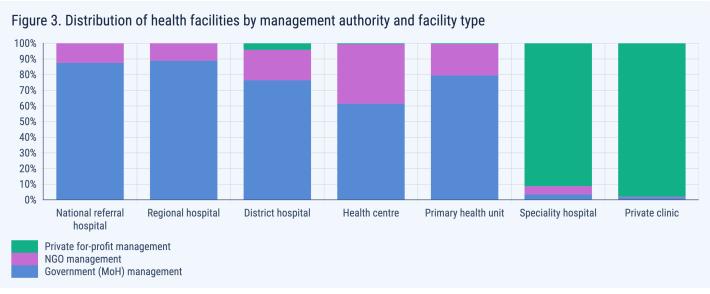
Notably, the distribution of health facility types is different in Banadir state. While lower-level health facilities (health centres and private clinics) still make up the majority of facilities in Banadir, the proportion of private clinics is much higher in Banadir compared to other states (42% of facilities in Banadir are private clinics, compared to 16% across all six states). Another difference across states is the proportion of facilities that are primary health units (PHUs), with Puntland (37%), Galmudug (34%), and Jubaland (24%) having a greater proportion of PHUs than South West (9%), Hirshabelle (4%), and Banadir (0%).



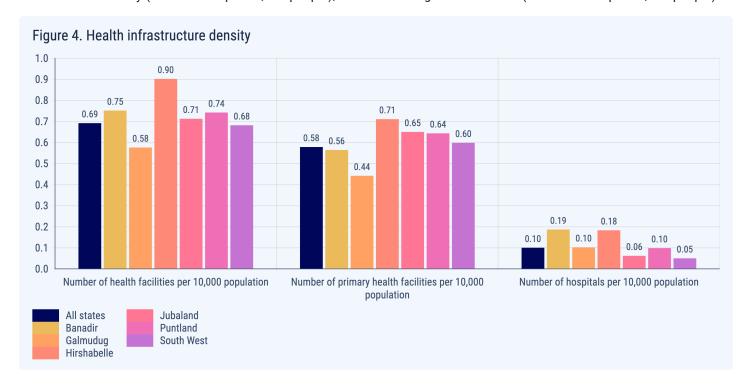
As shown in Table 2 and Figure 2, around half (53%) of all facilities across the six states are managed by the government or Ministry of Health (MoH). Non-governmental organisations (NGOs), or private not-for-profit organisations, manage 25% of health facilities, with the remainder managed by private for-profit organisations (21%) or other authorities (1%). As above, there is a notable difference in the proportion of privately managed facilities across states. In Banadir, 58% of facilities are managed by private for-profit organisations, while in Puntland, only 9% are managed by private for-profit organisations. In Puntland, the vast majority (90%) of health facilities are managed by the government or MoH. By contrast, the government or MoH manages only 39% of facilities in Banadir, 34% in Jubaland, and 28% in Hirshabelle. Figure 3 shows that almost all (99%) national referral hospitals, regional hospitals, district hospitals, health centres, and primary health units are managed by the government/MoH or by an NGO, meaning that they are either public or private not-for-profit facilities. Almost all (94%) speciality hospitals and private clinics are managed by private for-profit organisations.

	Government (MoH) management	NGO management	Private for-profit management	Other management	Total	
Banadir	80	6	119	0	205	
Galmudug	79	48	16	3	146	
Hirshabelle	32	61	23	2	118	
Jubaland	54	76	29	1	160	
Puntland	283	6	27	0	316	
South West	114	110	41	5	270	
Total	642	307	255	11	1,215	

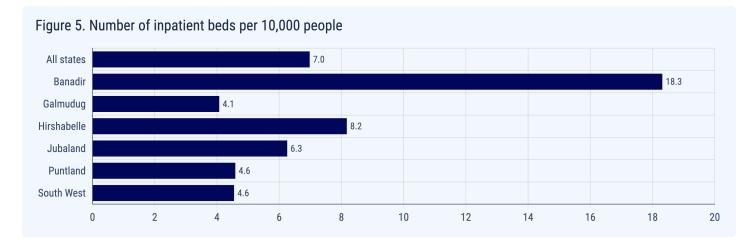




Across the six states, there are 0.69 health facilities (of any type) per 10,000 people, with 0.58 primary health facilities and 0.1 hospitals per 10,000 people (Figure 4). This is equivalent to one health facility for every 14,400 people, one primary health facility for every 17,200 people, and one hospital for every 98,000 people. Hirshabelle has the highest health infrastructure density (0.9 facilities per 10,000 people), while Galmadug has the lowest (0.58 facilities per 10,000 people).



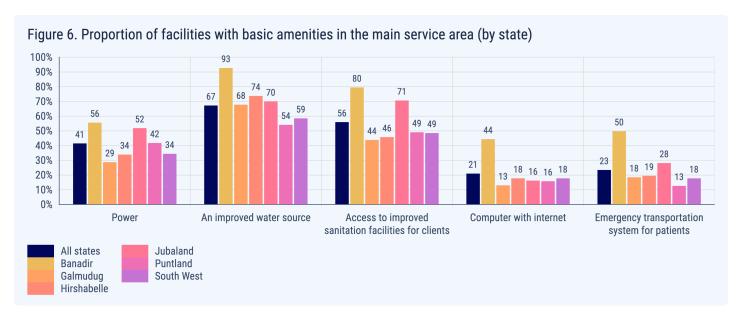
Per Figure 5, there are an average of 7.0 inpatient beds per 10,000 people across the six states. However, this ratio varies greatly by state, with Banadir having over twice as many inpatient beds per 10,000 people as any other state. Banadir has 18.3 inpatient beds per 10,000 people, or one inpatient bed for every 550 people, while Galmadug has only 4.1 inpatient beds per 10,000 people, or one inpatient bed for every 2,450 people.

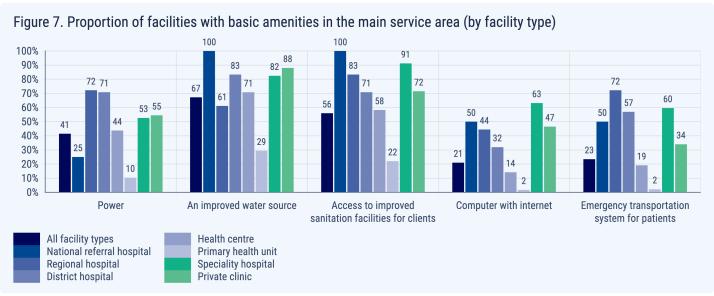


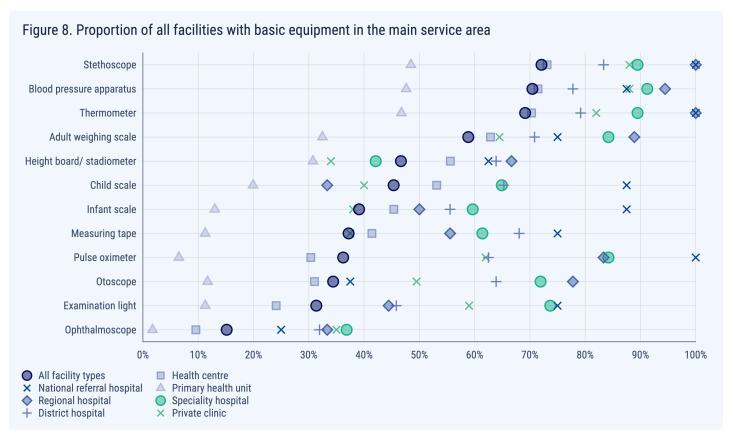
#### **Basic amenities**

The majority of health facilities in Somalia do not have a stable power supply. As shown in Figure 6 and Figure 7, 41% of facilities reported having electricity from any source that is used for lighting and communications in the facility, and that was always or often available over the seven days preceding the survey. Health facilities in Banadir were most likely to have a stable power supply (56% of facilities), while facilities in Galmadug, Hirshabelle, and South West were least likely to have a stable power supply (29%, 34%, and 34% respectively). Higher-level facilities and private facilities were more likely to have power, with only 10% of primary health units having a stable power supply across the six states.

Two-thirds (67%) of facilities had an improved water source, meaning piped water into the facility or onto facility groups, or a verified source such as a public tap/standpipe, tubewell/borehole, protected dug well, protected spring, or rainwater tank. 56% had access to improved sanitation facilities for clients. Only 21% of facilities had a computer with internet, and only 23% of facilities had an emergency transportation system for patients. Facilities in Banadir were more likely to be well equipped than facilities in other states, across all amenity types, and private facilities (speciality hospitals and private clinics) were more likely to be well equipped than public facilities.







Not all facilities had basic equipment in the main service area of the facility. Some equipment was more often available than others. Per Figure 8, 72% of facilities had a stethoscope, 70% had a blood pressure apparatus, and 69% had a thermometer. However, only 45% had a child weighing scale, 36% had a pulse oximeter, 34% had an otoscope, and only 15% had an ophthalmoscope. Even at higher-level facilities, such as public and private hospitals, many items were not available at more than 70% of hospitals.

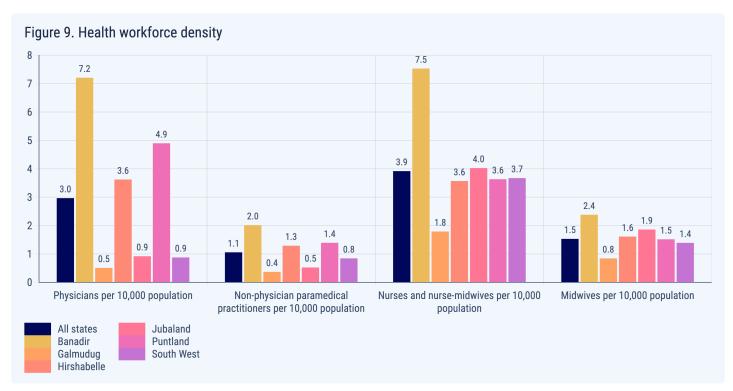
#### Key findings on health facility infrastructure and amenities

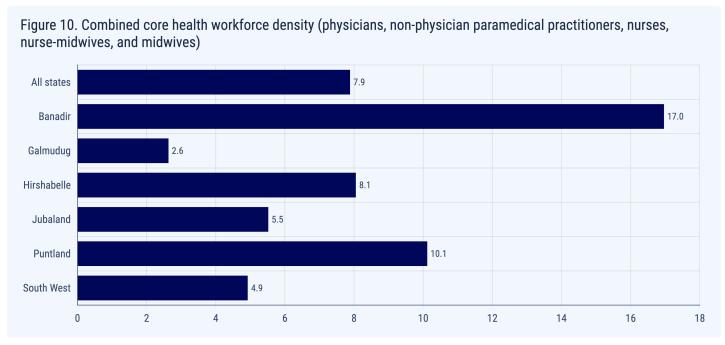
- 1,215 operational health facilities were documented during the HHFA.
- Health centres are the most common facility type (606), followed by primary health units (231), and private clinics (200).
- 69% of facilities are primary care facilities, including health centres or primary health units. (If private clinics are included as primary care facilities, 85% of facilities are primary care facilities.).
- 13% of facilities are hospitals, including national referral hospitals, regional hospitals, district hospitals, and speciality hospitals.
- There is a greater proportion of private facilities in Banadir than in other states. 42% of facilities in Banadir are private clinics, compared to 16% across all six states.
- The proportion of facilities that are primary health units varies by state. Puntland (37%), Galmudug (34%), and Jubaland (24%) having a greater proportion of primary health units than South West (9%), Hirshabelle (4%), and Banadir (0%).
- 53% of facilities are managed by the government or Ministry of Health (MoH), 25% are managed by non-governmental organisations (NGOs), and 21% are managed by private for-profit organisations.
- Almost all (99%) national referral hospitals, regional hospitals, district hospitals, health centres, and primary health units are managed by the government/MoH or by an NGO. Almost all (94%) speciality hospitals and private clinics are managed by private for-profit organisations.
- Across the six states, there are 0.69 health facilities of any type per 10,000 people, with 0.58 primary care facilities and 0.1 hospitals per 10,000 people (equivalent to one health facility for every 14,400 people, one primary care facility for every 17,200 people, and one hospital for every 98,000 people).
- Hirshabelle has the highest health infrastructure density (0.9 facilities per 10,000 people), while Galmadug has the lowest (0.58 facilities per 10,000 people).
- 41% of facilities reported having electricity from any source, 67% have an improved water source, 56% have access to improved sanitation facilities for clients, 21% have a computer with internet, and 23% have an emergency transportation system for patients.
- Not all facilities had basic equipment in the main service area of the facility. 72% of facilities had a stethoscope, 70% had a blood pressure apparatus, and 69% had a thermometer.

## **Health workforce**

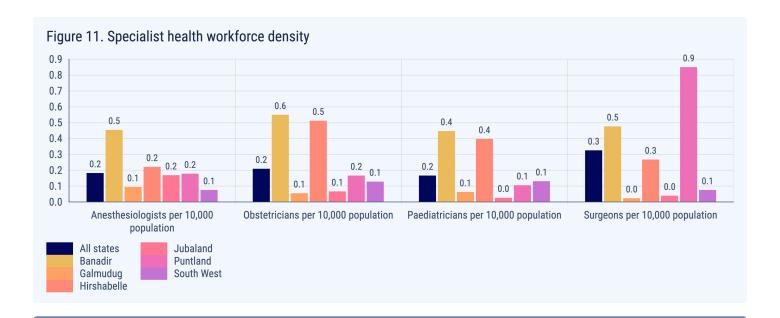
Across the six states, there are 3.0 physicians, 1.1 non-physician paramedical practitioners, 3.9 nurses and nurse-midwives, and 1.5 midwives per 10,000 people (Figure 9). This is equivalent to one physician for every 3,400 people, one nurse or nurse-midwife for every 2,500 people, and one midwife for every 6,500 people. When combining physicians, non-physician paramedical practitioners, nurses, nurse-midwives, and midwives, there are 7.9 health workers per 10,000 people, equivalent to one health worker for every 1,300 people (Figure 10).

The availability of health workers at facilities varies considerably by state. In Banadir, health worker density is twice as high as the national average, over six times higher than Galmudug, and three times higher than South West and Jubaland. Banadir has one physician for every 1,400 people, whereas Galmudug has one physician for every 20,000 people.





As would be expected, the density of specialist health workers is lower than non-specialist health workers. Across the six states, there are 0.18 anesthesiologists, 0.21 obstetricians, 0.17 paediatricians, and 0.33 surgeons per 10,000 people (Figure 11). Similar to non-specialist health workers, the density of specialist health workers varies considerably by state, with Banadir having a considerably greater density of specialist health workers than other states, with the exception of surgeons, which have the highest density in Puntland.

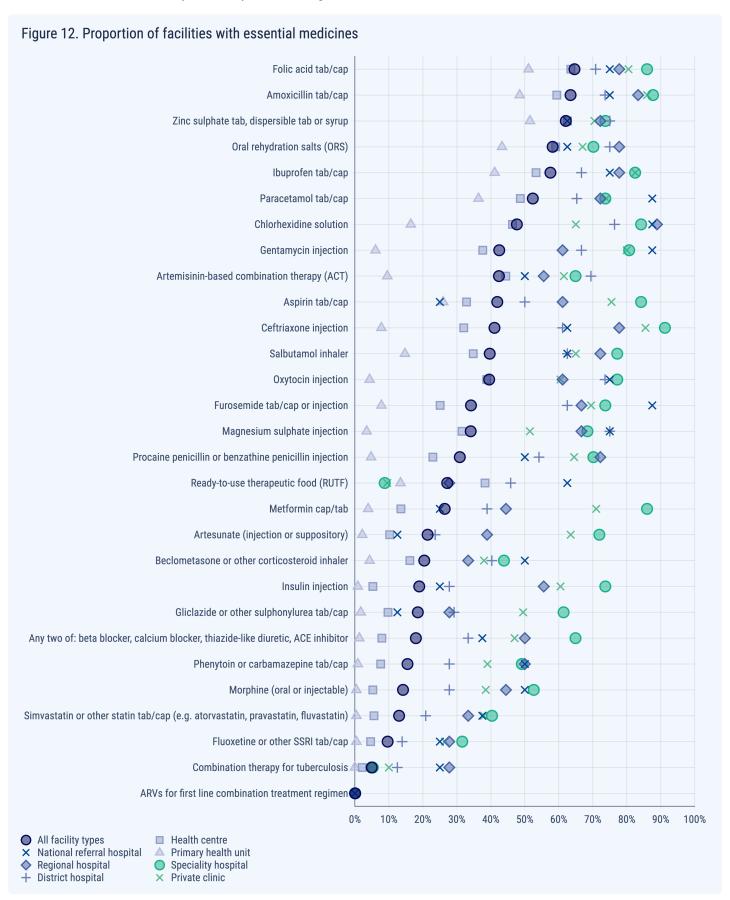


#### Key findings on health workforce

- Across the six states, there are 3.0 physicians, 1.1 non-physician paramedical practitioners, 3.9 nurses and nurse-midwives, and 1.5 midwives per 10,000 people, equivalent to one physician for every 3,400 people, one nurse or nurse-midwife for every 2,500 people, and one midwife for every 6,500 people.
- When combining physicians, non-physician paramedical practitioners, nurses, nurse-midwives, and midwives, there are 7.9 health workers per 10,000 people, equivalent to one health worker for every 1,300 people.
- Health worker density varies considerably by state. The combined core health worker density per 10,000 people is 17.0 in Banadir, 10.1 in Puntland, 8.1 in Hirshabelle, 5.5 in Jubaland, 4.9 in South West, and 2.6 in Galmudug. Banadir has one physician for every 1,400 people, while Galmudug has one physician for every 20,000 people.
- There are 0.18 anesthesiologists, 0.21 obstetricians, 0.17 paediatricians, and 0.33 surgeons per 10,000 people. As for non-specialist health workers, the density of specialist health workers varies by state.

## **Essential medicines**

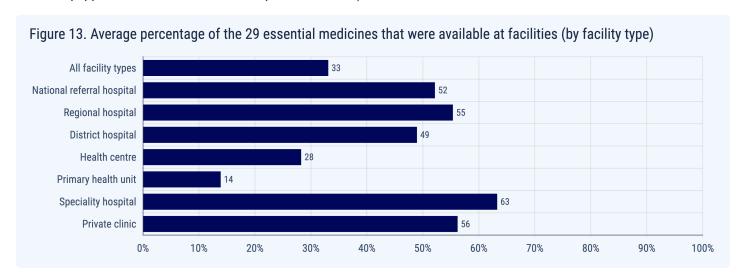
The proportion of facilities with unexpired essential medicines, available at the time of the survey, varied considerably by the specific medicine. Per Figure 12, the most commonly available medicines were folic acid (available at 65% of all facility types), amoxicillin (63%), zinc sulphate (62%), oral rehydration solution (58%), ibuprofen (57%), and paracetamol (52%). The remaining 22 out of 29 essential medicines were available at fewer than 50% of health facilities. No single medicine was available at more than 75% of public hospitals. No single medicine was available at more than 63% of health centres.

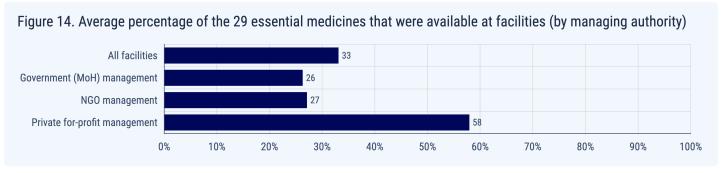


Only seven medicines were available at more than 20% of primary health units (PHUs): aspirin (available at 25% of PHUs), paracetamol (36%), ibuprofen (41%), amoxicillin (49%), oral rehydration solution (44%), zinc (53%), and folic acid (52%). Notably, only 10% of PHUs had artemisinin-based combination therapy (ACT) for malaria, and only 14% had ready-to-use therapeutic foods (RUTFs).

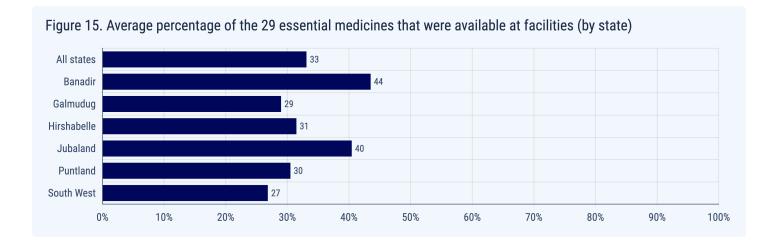
In general, private facilities were more likely to have essential medicines than public facilities (Figure 13 and Figure 14). On average, private speciality hospitals had 63% of the essential medicines (an average of 19 of the 29 medicines) and private clinics had 56% of the essential medicines (16 of the 29 medicines). By contrast, national referral hospitals had an average of 52% of the medicines (15 out of 29), regional hospitals had an average of 55% of the medicines (16 out of 29) and district hospitals had an average of 49% of the medicines (14 out of 29). Across different facility types, private for-profit facilities had an average of 58% of the essential medicines (17 out of 29), whereas government (MoH) managed facilities only had an average of 26% of the essential medicines (8 out of 29) and NGO managed facilities had an average of 27% of the essential medicines (8 out of 29).

The only commodity that was less available at speciality hospitals than at public hospitals was ready-to-use therapeutic food (RUTF), with only 9% of speciality hospitals having RUTF. (This reflects the finding below that private facilities are not as well equipped for childhood nutrition as public facilities.)





Per Figure 15, there was relatively little difference in the availability of essential medicines across states. The medicines that were available at most facilities (for example, folic acid, amoxicillin, zinc sulfate, and oral rehydration solution), were equally available across all states. The medicines that were unavailable at most facilities were unavailable in all states.



#### Key findings on essential medicines

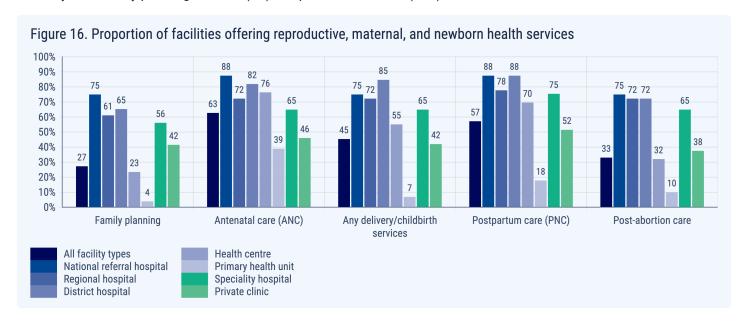
- The availability of essential medicines at facilities varied considerably by the specific medicine and by facility type.
- The most commonly available medicines were folic acid (65% of facilities), amoxicillin (63%), zinc sulphate (62%), oral rehydration solution (58%), ibuprofen (57%), and paracetamol (52%). The remaining 22 out of 29 essential medicines were available at fewer than 50% of health facilities.
- National referral hospitals had an average of 52% of the 29 essential medicines (15 out of 29 medicines), regional hospitals had an average of 55% (16 out of 29 medicines) and district hospitals had an average of 49% (14 out of 29 medicines).
- Health centres had an average of 28% of the 29 essential medicines (8 out of 29 medicines) and primary health units had an average of 14% (4 out of 29 medicines).
- Private speciality hospitals had an average of 63% of the 29 essential medicines (19 out of 29 medicines) and private clinics had an average of 56% (16 out of 29 medicines).
- The most commonly available essential medicines (folic acid, amoxicillin, zinc sulphate, oral rehydration solution) were still only available at 75% of public hospitals (national referral hospitals, regional hospitals, and district hospitals) and 50% of health centres.
- Only seven medicines were available at more than 20% of primary health units: aspirin (25%), paracetamol (36%), ibuprofen (41%), amoxicillin (49%), oral rehydration solution (44%), zinc (53%), and folic acid (52%).
- There was relatively little difference in the availability of essential medicines across states.

## Reproductive, maternal, newborn, and child health and nutrition

#### Maternal and newborn health

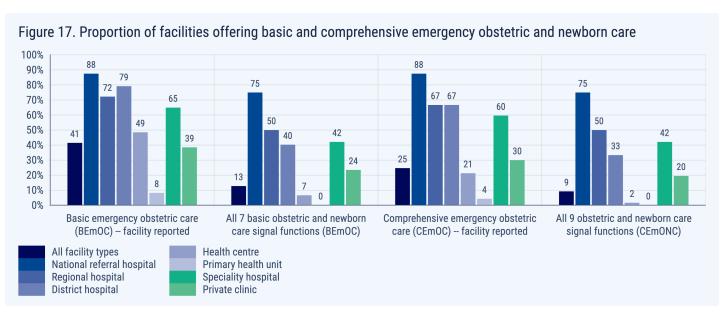
As shown in Figure 16, 63% of facilities reported offering antenatal care, 45% reported offering delivery/childbirth services, and 57% reported offering postnatal care for pregnant women and newborns. Only a minority of facilities reported offering family planning services (27%) or post-abortion care (33%). The availability of maternal and newborn health services is generally highest at hospitals (81% of public hospitals offer antenatal care, 82% offer delivery services, and 86% offer postnatal care) although most health centres also offer antenatal care (76%) and postnatal care (70%). The availability of family planning services is lower at public facilities than at private facilities. Only 21% of public facilities offer family planning, while 46% of private for-profit facilities offer family planning.

While primary health units (PHUs) are not expected to provide delivery services, it is notable that only a minority of PHUs offer outpatient services for antenatal care (39%) and postpartum care (18%). Likewise, only a small fraction of PHUs currently offer family planning services (4%) and post-abortion care (10%).

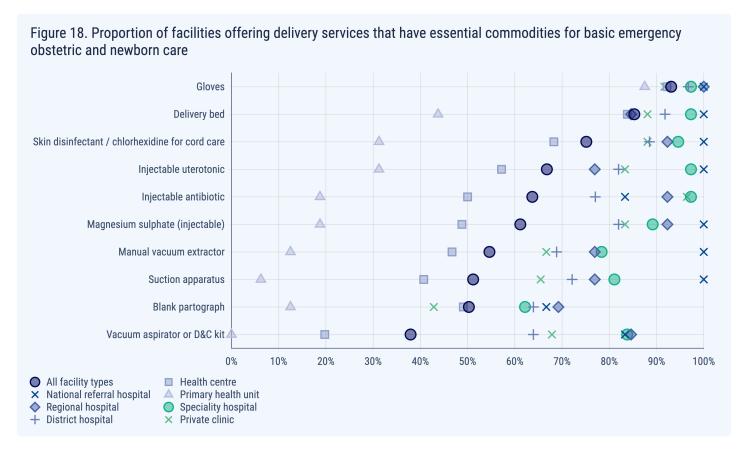


#### **Emergency obstetric care**

Basic emergency obstetric and newborn care (BEmONC) was reported to be available at 41% of facilities. Most of the facilities that reported offering BEmONC were higher-level facilities (78% of public hospitals and 65% of private for-profit hospitals). However, only 13% of facilities reported offering all 7 obstetric and newborn care signal functions required by BEmONC. Similarly, 25% of facilities reported offering comprehensive emergency obstetric and newborn care (CEmONC), but only 9% of facilities reported offering all 9 obstetric and newborn care signal functions required by CEmONC. Caesarean section is offered at 75% of national referral hospitals, 67% of regional hospitals, and 57% of district hospitals.

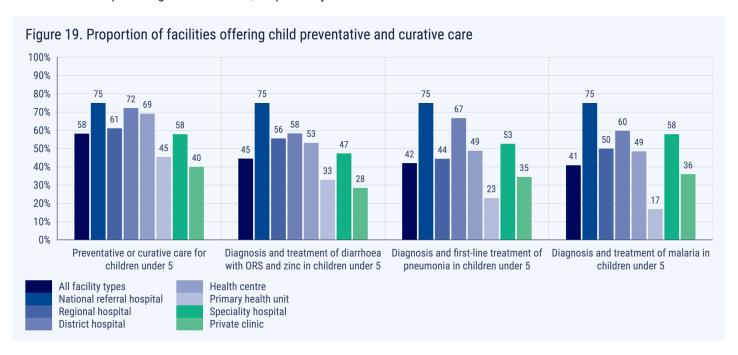


Not all facilities that offer delivery services had the necessary equipment and supplies to provide these services. Among facilities offering delivery services, 38% had a vacuum aspirator or D&C kit for the removal of retained products of conception, and 55% had a suction apparatus and/or a manual vacuum extractor for assisted vaginal delivery. 61% of facilities offering delivery services had magnesium sulphate for the management of pre-eclampsia/eclampsia, 64% had injectable antibiotics to manage maternal sepsis, and 67% had injectable uterotonics to manage post-partum haemorrhage. Higher-level facilities were well-stocked for emergency obstetric care compared to lower-level health facilities.

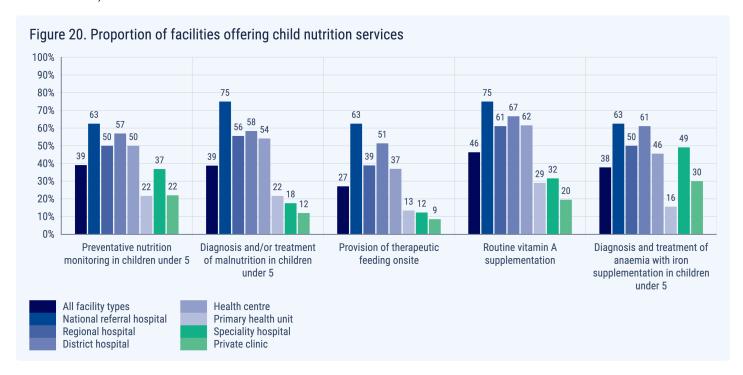


#### Child health and nutrition

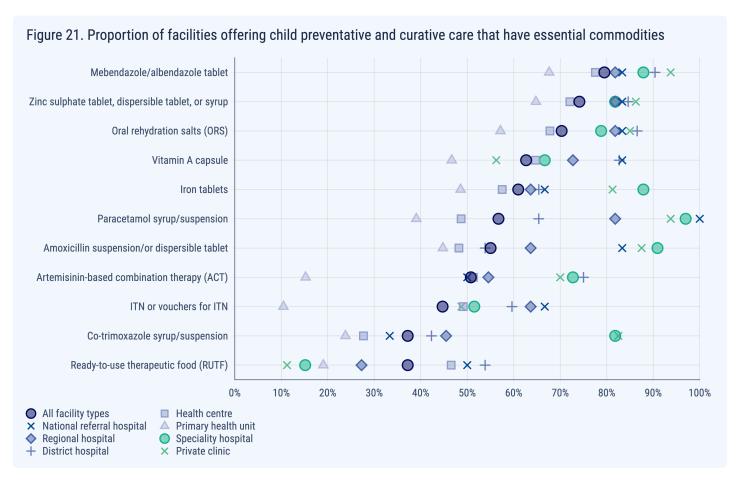
Only a minority of health facilities offer basic outpatient services for childhood diarrhea (45%), pneumonia (42%), and malaria (41%). While the availability of childhood curative services is higher at hospitals than at lower-level facilities, approximately half of public and private hospitals do not offer these basic services. Primary health units (PHUs) would seem to be best placed to provide basic childhood treatments for diarrhea, penumonia, and malaria, yet only 33%, 23%, and 17% of PHUs are providing these services, respectively.



The availability of childhood nutrition services is even lower than the availability of childhood curative services. Only 39% of facilities reported offering preventative nutrition monitoring and only 39% reported offering diagnosis and/or treatment of malnutrition in children under 5. Notably, only a small proportion of private facilities offer childhood nutrition services (37% of speciality hospitals and 22% of private clinics) compared to public facilities (56% of public hospitals and 50% of health centres).

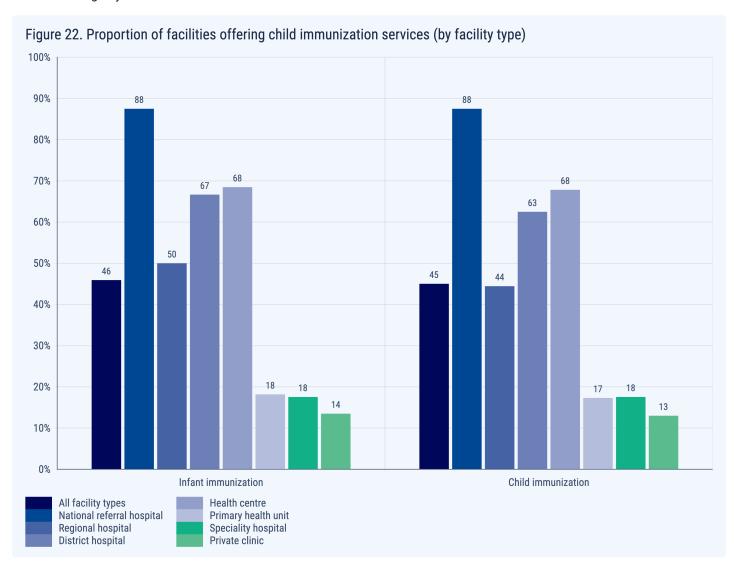


Not all facilities that offer child preventative and curative care had the necessary supplies to provide these services. 70% of facilities that offer child health services had oral rehydration solution (ORS) to manage childhood diarrhea, 55% had amoxicillin for pneumonia, and 51% had artemisinin-based combination therapy (ACT) for malaria. Ready-to-use therapeutic foods (RUTFs) are not often stocked, with only 37% of all facilities that offer child preventative and curative care services having RUTFs. In general, private hospitals and clinics are better stocked than public facilities for child health services.

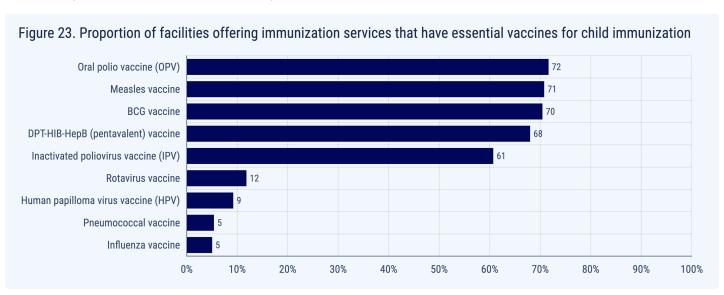


#### **Child immunization**

Childhood immunization services are available at 62% of public hospitals and 68% of health centres. Only a small proportion (17%) of primary health units offer child immunization services. Private hospitals and clinics generally have lower availability of immunization services than other facility types, with only 18% of speciality hospitals and 13% of private clinics offering any childhood immunization services.



Certain vaccines were more likely than other vaccines to be stocked by facilities offering immunization services. Among facilities offering immunization, 72% had the oral polio vaccine, 71% had the measles vaccine, 70% had the BCG vaccine, and 68% had the pentavalent vaccine (Figure 23). Only 5% of facilities offering immunization had the pneumococcal vaccine, only 9% had the HPV vaccine, and only 12% had the rotavirus vaccine.



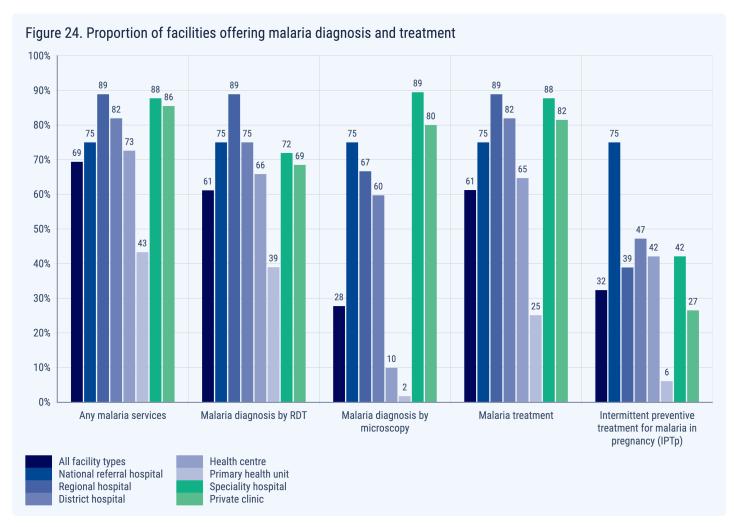
#### Key findings on reproductive, maternal, newborn, and child health and nutrition

- 63% of facilities reported offering antenatal care, 45% reported offering delivery/childbirth services, and 57% reported offering postnatal care for pregnant women and newborns.
- Delivery/childbirth care is available at 82% of public hospitals (national referral hospitals, regional hospitals, and district hospitals), 55% of health centres, 65% of private speciality hospitals, and 42% of private clinics.
- Only a minority of primary health units offer any outpatient services for antenatal care (39%), postpartum care (18%), family planning (4%), or post-abortion care (10%).
- Family planning services are not as widely available as other maternal health services and more often available at private facilities. Only 21% of public facilities offer family planning, while 46% of private for-profit facilities offer family planning.
- Caesarean section is offered at 75% of national referral hospitals, 67% of regional hospitals, and 57% of district hospitals.
- Only 13% of facilities reported offering all 7 signal functions required for basic emergency obstetric and newborn care (BEmONC). Only 9% of facilities reported offering all 9 signal functions required for comprehensive emergency obstetric and newborn care (CEmONC).
- Only two-thirds of facilities that offer delivery care had the necessary supplies and equipment to provide basic emergency obstetric care if needed: 61% had magnesium sulphate for pre-eclampsia/eclampsia, 64% had injectable antibiotics for maternal sepsis, and 67% had injectable uterotonics for post-partum haemorrhage.
- Only a minority of health facilities offer basic outpatient services for childhood diarrhea (45%), pneumonia (42%), and malaria (41%). Only 33%, 23%, and 17% of primary health units are providing these services, respectively.
- 39% of facilities reported offering diagnosis or treatment of malnutrition in children under 5. Ready-to-use therapeutic foods (RUTFs) are not often stocked, with only 37% of facilities that offer child preventative and curative care services having RUTFs.
- Childhood immunization services are available at 62% of public hospitals, 68% of health centres, and 17% of primary health units.
- Fewer private hospitals and clinics offer childhood immunization services than public facilities, with only 18% of speciality hospitals and 13% of private clinics offering any childhood immunization services.

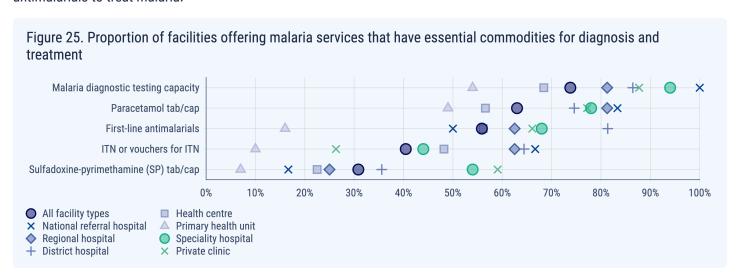
## Infectious diseases

#### Malaria

Approximately two-thirds (69%) of facilities offer any malaria services, with 61% offering malaria diagnosis by rapid diagnostic test (RDT) and 61% offering malaria treatment (Figure 24). Fewer facilities offer malaria diagnosis by microscopy (28%) and intermittent preventive treatment for malaria in pregnancy (IPTp) (32%). Malaria diagnosis and treatment is highest at speciality hospitals and private clinics, with 87% of private facilities offering malaria services. Only 43% of primary health units offer any malaria services, with only 25% of primary health units providing malaria treatment.

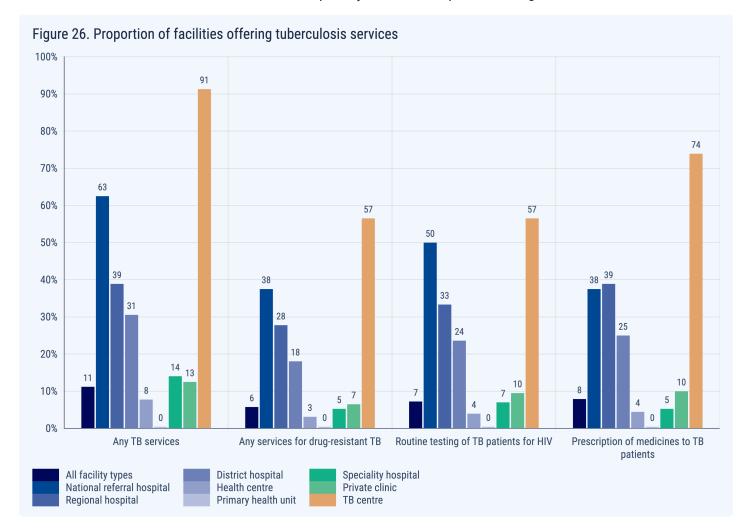


Most facilities (74%) that offer malaria services had the capacity to test for malaria at the time of the HHFA survey, either by RDT or microscopy (Figure 25). Only 56% of facilities had first-line antimalarials to treat malaria, including 73% of public hospitals and 56% of health centres. Only 17% of primary health units that reported offering malaria services had first-line antimalarials to treat malaria.

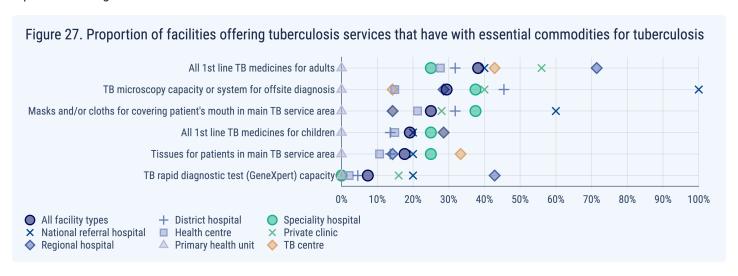


#### **Tuberculosis (TB)**

In Somalia, some health facilities are designated as "Tuberculosis (TB) centres". These facilities are included in the following results on TB service availability and readiness (Figure 26 and Figure 27). When considering all facilities of any facility type across the six states, only 11% reported offering any TB services. By contrast, 91% of TB centres offer TB services. [NOTE: This is likely a data quality issue. Clearly all TB centres are likely offering TB services, or should at least report offering TB services.] Of the non-TB-centre health facilities, national referral hospitals had the highest availability of TB services, with 63% offering any TB services. On average, only 35% of all public hospitals reported offering any TB services. 8% of health centres and fewer than 1% of primary health units reported offering TB services.

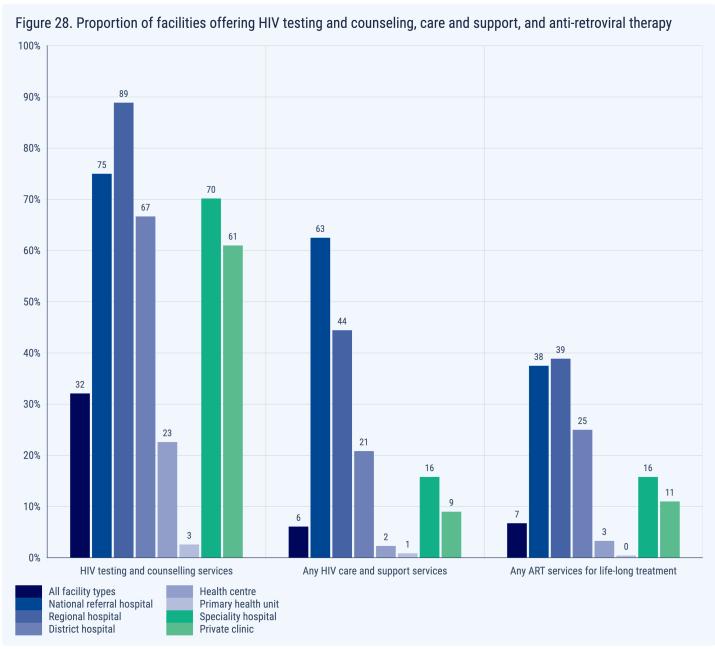


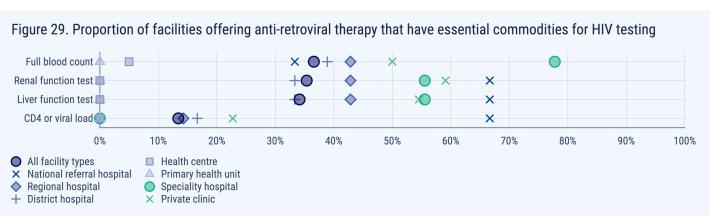
While the proportion of facilities that offer any TB services is low, the proportion that had the necessary commodities to assess and treat TB at the time of the survey was even lower. Per Figure 27, among facilities that reported offering TB services (which itself is only 11% of facilities), only 39% had all first-line TB medicines for adults and only 20% had all first-line TB medicines for children. On-site diagnostic testing for TB (with GeneXpert) was available at only 7% of facilities that reported offering TB services.



#### **Human immunodeficiency virus (HIV)**

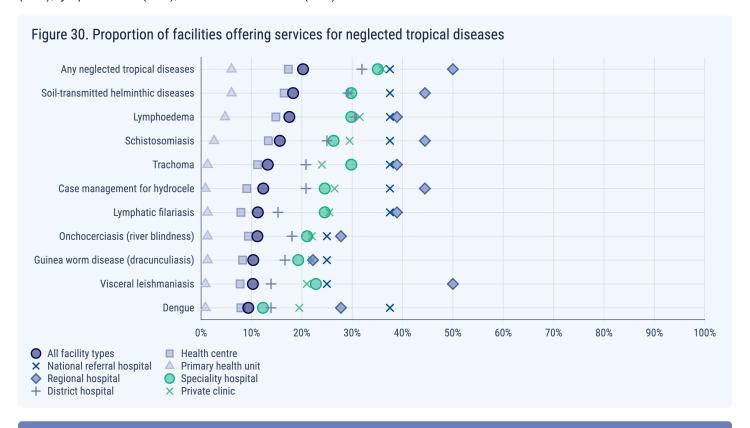
As shown in Figure 28, the availability of HIV services across the six states is low, with only 32% of facilities offering HIV testing and counselling, only 6% offering HIV care and support services, and only 7% offering any anti-retroviral therapy (ART) services for life-long treatment of HIV. Services are mostly only available at higher-level facilities, with 72% of public hospitals offering HIV testing and counselling compared to 23% of health centres. Speciality hospitals and private clinics are less likely than public hospitals to offer HIV care and support services and ART for life-long treatment. Per Figure 29, only a minority of facilities that reported offering ART have appropriate diagnostic and testing capabilities, with only 13% having testing for CD4 count or viral load.





#### **Neglected tropical diseases**

Only a small minority of facilities reported offering services for any neglected tropical diseases (NTDs) (Figure 30). The availability of services for NTDs is generally higher at hospitals, although only 35% of public hospitals and 36% of speciality hospitals have services for any NTDs. The most commonly available services are for soil-transmitted helminthic diseases (18%), lymphoedema (17%), and schistosomiasis (16%).



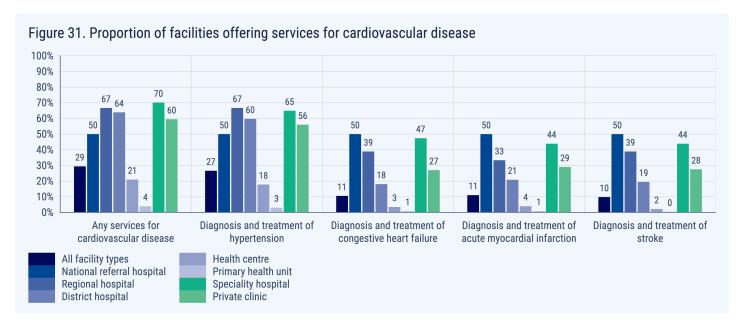
#### **Key findings on infectious diseases**

- Across the six states, 69% of facilities reported offering any malaria services, and 61% reported offering malaria treatment.
- 43% of primary health units offer any malaria services, with only 25% of primary health units providing malaria treatment.
- Only 56% of facilities that reported offering malaria services had first-line antimalarials to treat malaria. Only 17% of primary health units that offer malaria services had first-line antimalarials to treat malaria.
- 11% of facilities reported offering any services for tuberculosis (TB). Only 39% and 20% of these facilities had all first-line TB medicines to treat adults and children, respectively.
- 32% of facilities reported offering HIV testing and counselling, 6% offering HIV care and support services, and 7% offering any anti-retroviral therapy (ART) services for life-long treatment of HIV.
- Services for HIV are mostly only available at higher-level facilities, with 72% of public hospitals offering HIV testing and counselling compared to 23% of health centres.
- Only a small minority of facilities reported offering services for any neglected tropical diseases, with 18% of facilities offering services for soil-transmitted helminthic diseases, 17% for lymphoedema, and 16% for schistosomiasis.

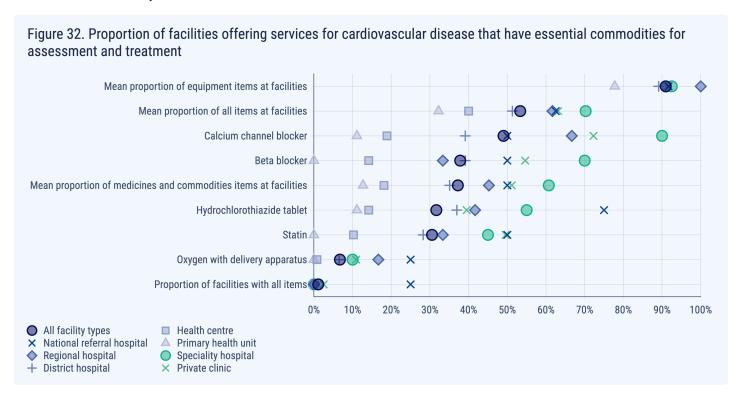
#### Non-communicable diseases

#### Cardiovascular disease, diabetes, and chronic respiratory disease

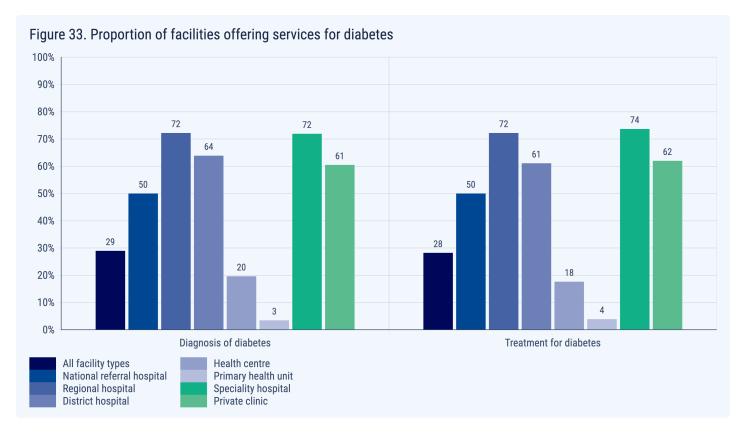
Services for cardiovascular disease are available at 63% of public hospitals, 70% of speciality hospitals, and 60% of private clinics (Figure 31). In most cases, the service is limited to the diagnosis and treatment of hypertension. However, a small proportion of facilities also reported offering treatment of congestive heart failure, acute myocardial infarction, and stroke. 60% of public hospitals provide diagnosis and treatment of hypertension. 24%, 26%, and 25% of public hospitals provide services for congestive heart failure, acute myocardial infarction, and stroke, respectively.



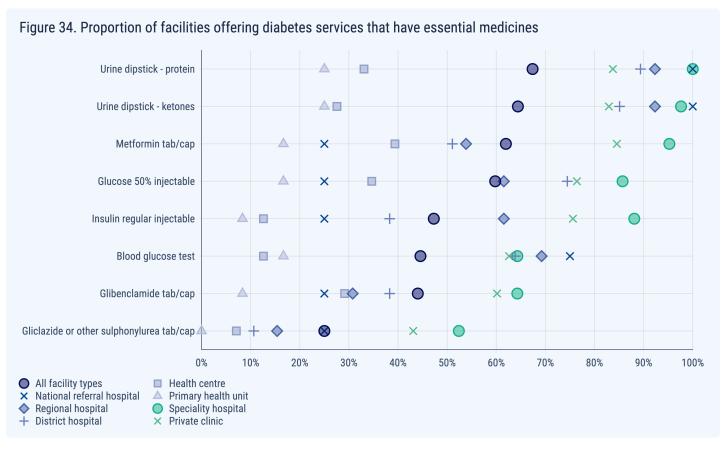
Per Figure 32, most facilities that offer services for cardiovascular disease had a blood pressure apparatus and stethoscope at the time of the survey (96% and 94% respectively). 67% of these facilities had aspirin. Fewer than 50% of facilities had any other medicines or commodities for cardiovascular disease, including calcium channel blocker, beta blocker, ACE inhibitor, hydrochlorothiaziade, or statin.



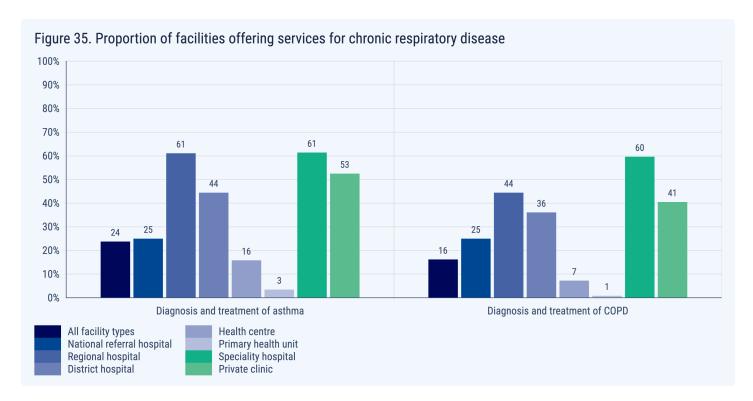
The availability of services for diabetes, and the readiness of facilities to offer diabetes services, is similar to the availability and readiness of services for cardiovascular disease. Per Figure 33, 29% and 28% of all facilities reported offering diagnosis and treatment for diabetes, respectively. Among higher-level facilities, 62% of public hospitals offer treatment for diabetes, while 65% of private facilities (hospitals and clinics) offer treatment for diabetes.



Most hospitals that offer services for diabetes were well-stocked to diagnose diabetes, with over 80% of hospitals having urine dipsticks (protein and ketones), and over 65% having blood glucose tests (Figure 34). However, fewer than 40% of health centres that offer diabetes services, and fewer than 25% of primary health units that offer diabetes services, had diagnostic tests for diabetes. The availability of medicines to treat diabetes is lacking, with only 62% of facilities that offer diabetes services having metformin, 60% having injectable glucose, and only 47% having regular injectable insulin.

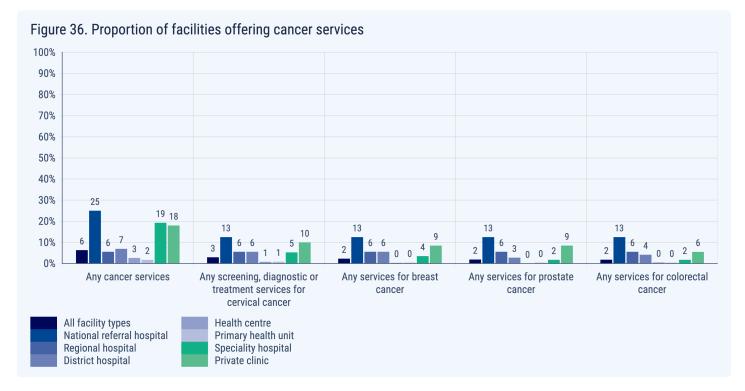


Only a minority of facilities (24%), including a minority of public hospitals (46%), offer diagnosis and treatment of asthma (Figure 35). Likewise, only a minority of facilities (16%) offer diagnosis and treatment of chronic obstructive pulmonary disorder (COPD). The proportion of private facilities that offer services for asthma and COPD is higher than the proportion of public facilities, with 55% and 46% of private facilities offering the services, respectively.



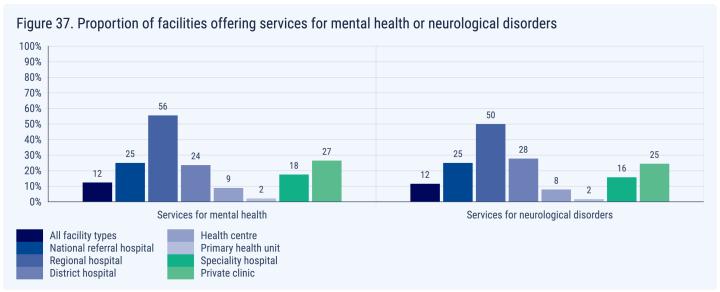
#### **Cancers**

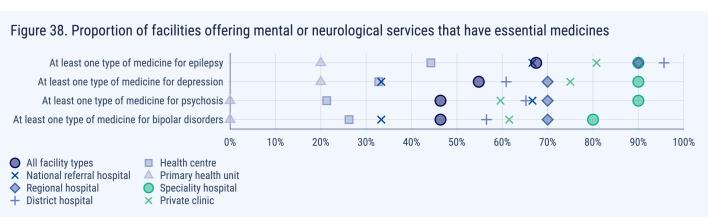
As shown in Figure 36, the proportion of facilities offering services for cancers is very low. Only 6% of facilities, including 8% of public hospitals, offer any services for any form of cancer. Speciality hospitals and private clinics are more likely to offer at least one cancer service (19% of speciality hospitals and 18% of private clinics), although these numbers are still low compared to the availability of other health services.



#### Mental health

Services for mental health and neurological disorders are available at 12% of facilities across the six states (Figure 37). As for other non-communicable diseases, the availability of services is higher at public hospitals (30%) than at health centres (9%) or primary health units (2%). Private facilities (25%) are less likely than public hospitals to offer services for mental health or neurological disorders, although private clinics (25%) are still more likely than public health centres (10%) to offer the services. Per Figure 38, about half of facilities that do offer mental or neurological services have the appropriate medications to treat these conditions, with 67% of these facilities having medicines for epilepsy, 55% having medicines for depression, and 46% having medicines for psychosis or bipolar disorders.



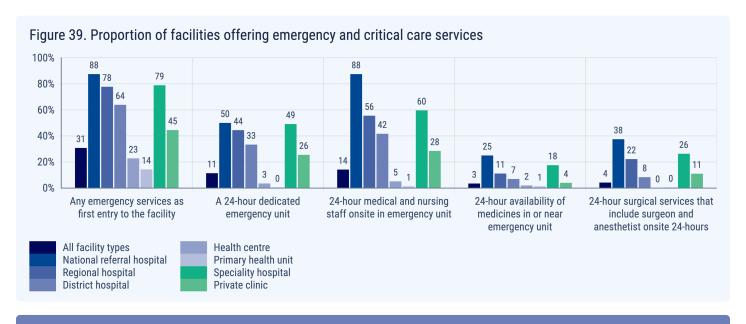


#### **Key findings on non-communicable diseases**

- 29% of facilities reported offering any services for cardiovascular disease, 29% for diabetes, 24% for asthma, 16% for chronic obstructive pulmonary disorder (COPD), 6% for any cancers, and 12% for mental health and neurological disorders.
- Services for non-communicable diseases (NCDs) are mostly only offered at hospitals and private clinics. Almost no primary health units (PHUs) offer even basic services for any non-communicable disease. Only 3% of PHUs offer services for diagnosis and treatment of hypertension, 3% offer diagnosis of diabetes, and 3% offer diagnosis and treatment of asthma.
- Among public hospitals (national referral hospitals, regional hospitals, and district hospitals), 63% reported offering services for cardiovascular disease, 62% for diabetes, 46% for asthma, 37% for COPD, and 30% for mental health and neurological disorders.
- Even at hospitals, services for cancers are rarely offered (8% of public hospitals and 19% of private speciality hospitals).
- Private facilities (speciality hospitals and private clinics) are generally more likely to offer services for NCDs than public hospitals or health centres.
- Not all facilities that reported offering services for NCDs had the necessary supplies and equipment to treat or manage the conditions. 67% of facilities that offer cardiovascular services had aspirin, and fewer than 50% had calcium channel blockers, beta blockers, ACE inhibitors, hydrochlorothiaziade, or statin. 62% of facilities that offer diabetes services had metformin, 60% had injectable glucose, and 47% had regular injectable insulin.
- Fewer than 40% of health centres that offer diabetes services, and fewer than 25% of primary health units that offer diabetes services, had diagnostic tests for diabetes.

## **Emergency and critical care**

As shown in Figure 39, only a minority (31%) of facilities reported offering emergency services, with 69% of public hospitals, 23% of health centres, and 53% of private facilities having any emergency services on first entry to the facility. 14% of all facilities, including 48% of public hospitals, have 24-hour medical and nursing staff onsite in an emergency unit. Only 3% of facilities (9% of public hospitals) have 24-hour availability of medicines in or near an emergency unit, and only 4% of facilities (13% of public hospitals) have 24-hour surgical services that include a surgeon and anesthetist onsite 24-hours.



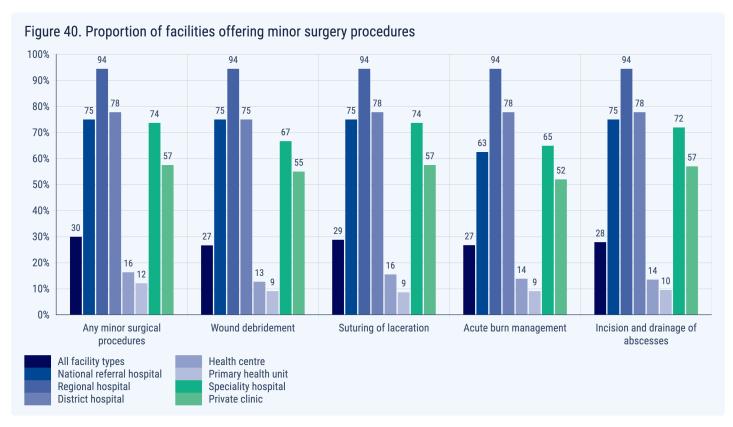
#### Key findings on emergency and critical care

- 69% of public hospitals (national referral hospitals, regional hospitals, and district hospitals) offer emergency services on first entry to the facility.
- 48% of public hospitals have 24-hour medical and nursing staff onsite in an emergency unit.
- 3% of all facilities (9% of public hospitals) have 24-hour availability of medicines in or near an emergency unit.

## **Surgery**

#### Minor surgery

A majority of public hospitals (81%), speciality hospitals (74%), and private clinics (57%) reported offering minor surgery, including procedures such as wound debridement, suturing of laceration, acute burn management, and incision and drainage of abscesses (Figure 40). Only 16% of health centres and 12% of primary health units reported offering any minor surgical procedures.



Not all facilities that reported offering minor surgery had the supplies and equipment to perform such surgery. Among facilities that offer minor surgery, 78% had suture needles and thread, 78% had sterile latex gloves, 64% had lidocaine, and 61% had skin disinfectant (Figure 41). Other equipment, such as materials for splinting, chest tubes, and materials for casts, was available at fewer than 40% of facilities that reported offering minor surgery.



#### **Major surgery**

As shown in Figure 42, only 16% of all facilities offer any major surgical procedures, including 51% of public hospitals, 70% of speciality hospitals, and 42% of private clinics. As expected, almost no health centres (2%) and primary health units (1%) offer major surgery, except for caaesarean section at a small proportion (5%) of health centres. At hospitals, caaesarean section is the most commonly available procedure (60% of public hospitals), followed by irrigation and debridement of open fractures (25% of public hospitals), appendent (23% of public hospitals), and amputation (21% of public hospitals). Private speciality hospitals are more likely to offer major surgical procedures than public hospitals.

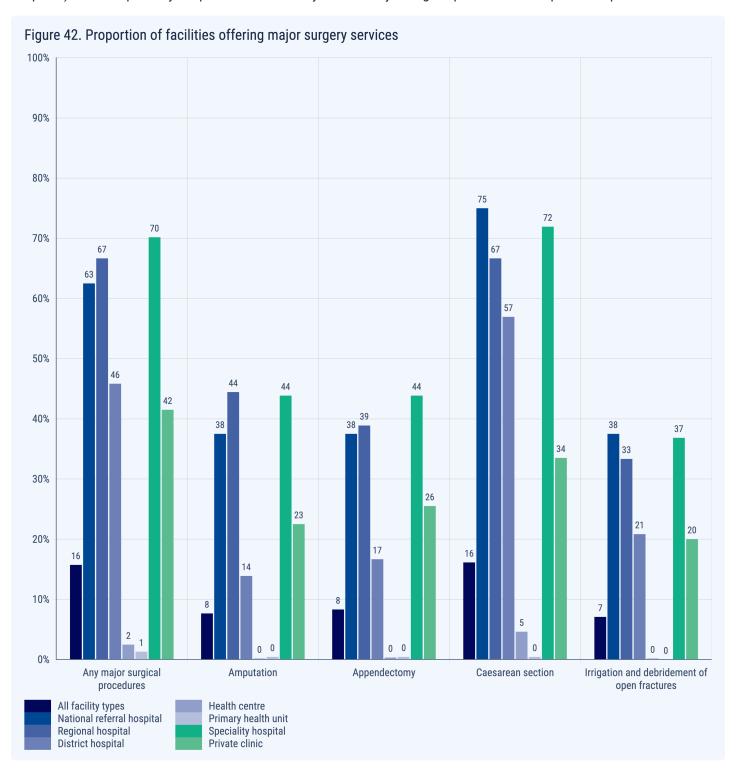


Figure 43 shows the proportion of facilities offering major surgery that had the specific necessary commodities to deliver these services; in other words, the readiness of these facilities to offer major surgery. Some commodities, such as disposable gloves, urinary catheters, and tourniquets, were available at 70% or more of facilities that reported offering major surgery. Other commodities, such as an anesthesia machine, cardiac monitor and ECG electrodes, and adult intubation equipment, were available at fewer than 50% of the facilities offering major surgery. A defibrillator was available at only 21% of facilities offering major surgery, and oxygen with administration equipment was available at only 17% of facilities offering major surgery.

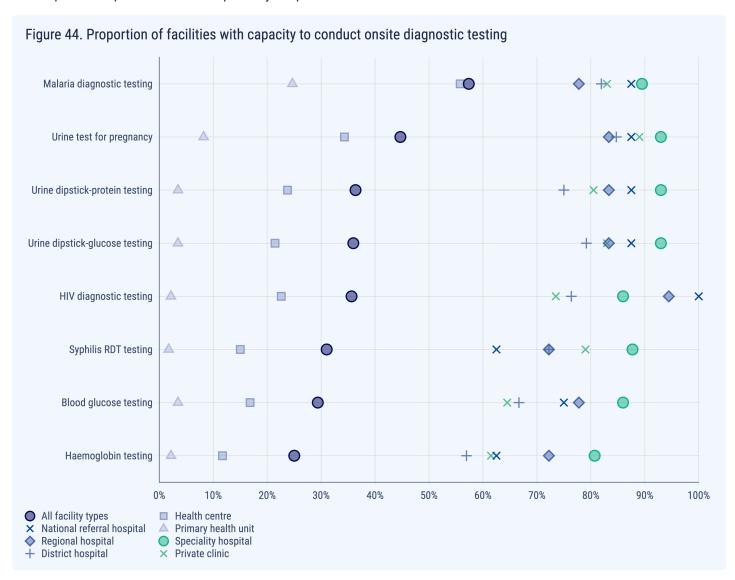


#### **Key findings on surgery**

- Minor surgical procedures are offered at 81% of public hospitals (national referral hospitals, regional hospitals, and district hospitals), 74% of speciality hospitals, and 57% of private clinics, with these facilities offering wound debridement, suturing of laceration, acute burn management, and incision and drainage of abscesses.
- Only 16% of health centres and 12% of primary health units offer any minor surgery.
- Among facilities that offer minor surgery, 78% had suture needles and thread, 78% had sterile latex gloves, 64% had lidocaine, and 61% had skin disinfectant.
- Major surgical procedures are offered at 51% of public hospitals, 70% of speciality hospitals, and 42% of private clinics.
- At public hospitals, caaesarean section is the most commonly available major surgery procedure (60%), followed by irrigation and debridement of open fractures (25%), appendectomy (23%), and amputation (21%).
- Among facilities that offer major surgery, 45% had an anesthesia machine, 41% had a cardiac monitor and ECG electrodes, 29% had adult intubation equipment, 21% had a defibrillator, and 17% had oxygen with administration equipment.

## **Laboratory services**

Among all facilities across the six states, 57% reported onsite diagnostic capacity for malaria testing, 45% for urine testing for pregnancy, 36% for urine dipstick-protein testing and urine dipstick-glucose testing, 29% for blood glucose testing, and 25% for haemoglobin testing (Figure 44). However, these proportions are far greater among hospitals, with approximately 75% of public hospitals and 90% of speciality hospitals able to conduct most of these tests.



As shown in Figure 45, only a minority of facilities that offer laboratory services had equipment for diagnostic testing. 30% of facilities that offer laboratory services had a light microscope, 28% had glass slides, and 27% had cover slips for glass slides. Only 33% of facilities that reported offering laboratory services had evidence of a record of specimens received and results recorded.

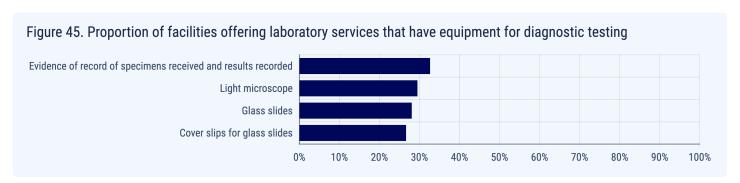
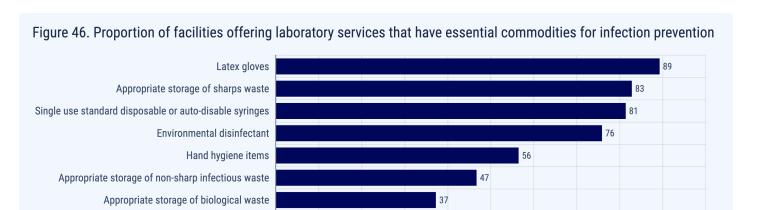


Figure 46 shows the proportion of facilities that offer laboratory services that had commodities for infection prevention and control. Most facilities with laboratory services had latex gloves (89%), environmental disinfectant (76%), and hand hygiene items (57%). While 83% of facilities with laboratory services had appropriate storage of sharps waste, only 47% had appropriate storage of non-sharp infectious waste and only 37% had appropriate storage of biological waste.



30%

40%

50%

60%

70%

80%

90%

100%

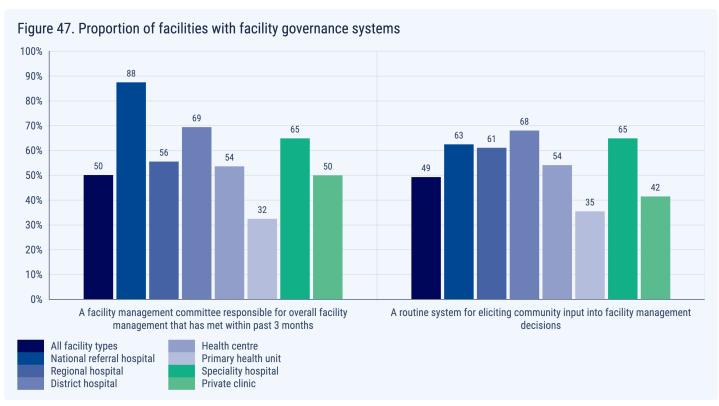
#### **Key findings on laboratory services**

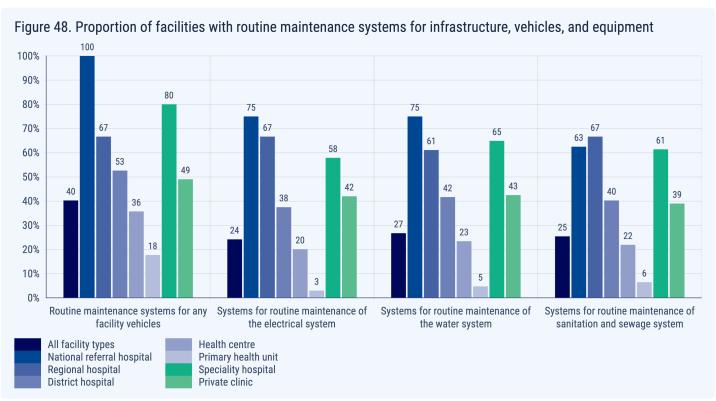
- Around 75% of public hospitals (national referral hospitals, regional hospitals, and district hospitals) and 90% of speciality hospitals are able to conduct onsite diagnostic testing for conditions including malaria, pregnancy, diabetes, HIV, and syphilis.
- Private facilities are better equipped for onsite diagnostic testing than government/MoH-managed or NGO-managed facilities, with 81% of speciality hospitals able to conduct haemoglobin testing, but only 60% of public hospitals able to conduct haemoglobin testing.
- 33% of facilities with laboratory services had evidence of a record of specimens received and results recorded.
- While 83% of facilities with laboratory services had appropriate storage of sharps waste, only a minority had appropriate storage of non-sharp infectious waste (47%) and biological waste (37%).

## **Management and governance**

#### **Management systems**

Half of facilities (50%) have a facility management committee responsible for overall facility management that had met in the three months prior to the survey (Figure 47). Generally, more hospitals had a facility management committee than lower-level facilities, although 33% of primary health units did have a facility management committee. A similar proportion of facilities had a routine system for eliciting community input into facility management decisions (49% of all facilities, 66% of public hospitals, and 35% of primary health units). Figure 48 shows the proportion of facilities with routine maintenance systems for infrastructure, vehicles, and equipment. 40% of all facilities have routine maintenance systems for any facility vehicles, 27% for the water system, 25% for sanitation and sewage systems, and 24% for the electrical system. A greater proportion of hospitals have these systems than health centres, primary health units, or private clinics.





#### **User fees**

Figure 49 shows the proportion of facilities that charge user fees for the outpatient or inpatient department. Although some public hospitals report charging user fees (13% of national referral hospitals, 33% of regional hospitals, and 13% of district hospitals), only a very small proportion of all government/MoH-managed (3%) and NGO-managed facilities (5%) charge user fees for the outpatient or inpatient department. By contrast, 51% of private for-profit facilities (speciality hospitals and private clinics) charge user fees for the outpatient or inpatient department

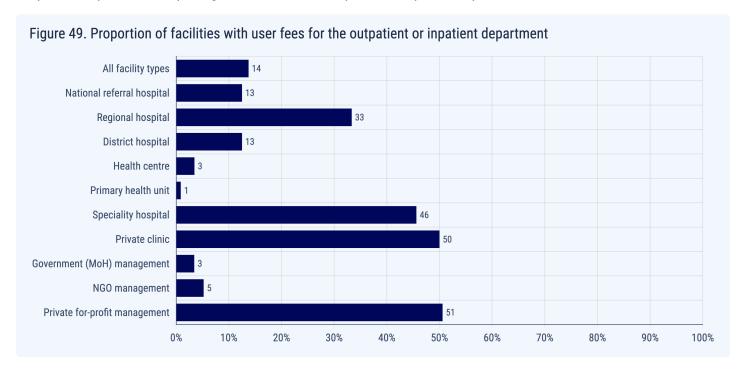
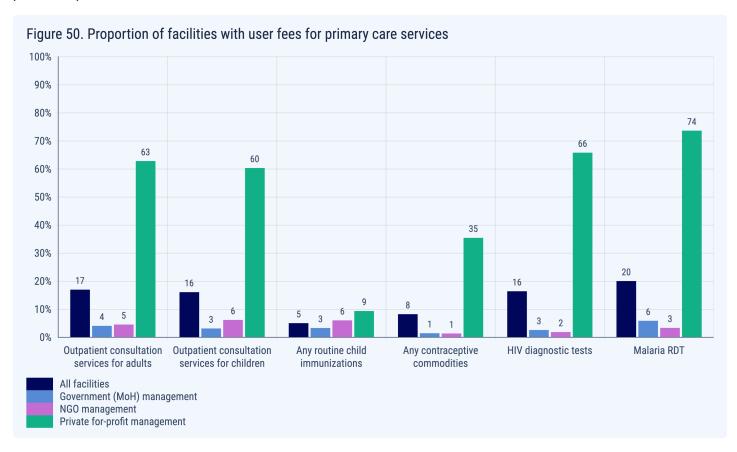
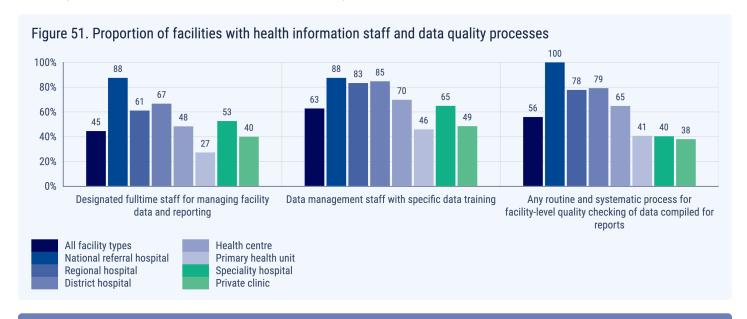


Figure 50 shows similar information for specific outpatient services and commodities. As above, only a small proportion of government/MoH-managed and NGO-managed facilities charge user fees for these services and commodities (less than 6% of facilities for any service). Approximately two-thirds of private for-profit facilities charge user fees for adult outpatient services (63%), child outpatient services (60%), HIV diagnostic tests (66%), and malaria rapid diagnostic tests (RDTs) (74%), with the exception of user fees for routine child immunizations, which are only accompanied by user fees at 9% of private for-profit facilities.



#### **Health information systems**

Figure 51 shows the proportion of facilities with health information staff and data quality processes. 45% of all facilities have designated fulltime staff for managing facility data and reporting, 63% have data management staff with specific data training, and 56% have a routine process for checking the quality of data compiled for reports. In general, more higher-level facilities have these systems than lower-level facilities, although a reasonable number of primary health units also have these systems (27% having fulltime staff for managing data and 46% having data management staff with specific data training). A similar proportion of private and public facilities had fulltime staff for managing data, while the proportion of private facilities with routine systems for quality checking of data was lower than for public facilities (40% of private speciality hospitals compared to 81% of public hospitals).



#### Key findings on management and governance

- Half of all facilities have a facility management committee (50%) and a system for eliciting community input into facility management decisions (49%).
- 40% of facilities have routine maintenance systems for any facility vehicles, 27% for the water system, 25% for sanitation and sewage systems, and 24% for the electrical system.
- User fees are mostly only charged at private for-profit facilities (51%), and rarely at government/MoH-managed facilities (3%) or NGO-managed facilities (5%).
- 45% of facilities have designated fulltime staff for managing data and reporting, including 68% of public hospitals (national referral hospitals, regional hospitals, and district hospitals), 48% of health centres, and 27% of primary health units.