PREFACE

Kenya has drawn the Roadmap for accelerating implementation of UHC, which is one of the priority agenda for the National Government. Determining the level of availability and readiness of health facilities to offer services, as well as the quality of care across the sector is paramount in planning for UHC implementation. This then demands an objective and comprehensive assessment of the functionality of the health system at community and facility level. This initiative will therefore serve to provide baseline information needed for costing health investments in Kenya, including the UHC Roadmap and the Kenya Health sector strategic and investment plan.

The Kenya Harmonized Health Facility Assessment (KHFA) was designed as a system to provide standardized assessments consisting of harmonized modules that cover all key blocks of service provision in a health facility, that include service availability, service readiness, quality and safety of care, and systems that support management as well as functionality of community structures. The KHFA approach departs from previous health facility assessments methods implemented in the past that have been implemented fragmentary, focusing on one area at a time.

Kenya is one of the first countries to adopt the approach of harmonizing the facility surveys into one comprehensive assessment. Lessons learnt during this process will be valuable for other countries in implementing similar surveys.

The KHFA has come at a critical time when plans to scale up UHC in Kenya are being developed. This then means that we now have the essential information needed to facilitate critical investments into health facilities, to facilitate them to deliver the essential health package for UHC.

We are certain that these results will significantly support us at national government, as well as our counties in planning and consequent management of available resources to maximize on outputs.

Finally, the KHFA findings will provide the foundation for which more regular service availability and readiness monitoring mechanisms will be established as part of routine reporting for sustainability.

It is our hope that all stakeholders and implementers will embrace these findings and utilize them, as this is a key element that will help us to significantly contribute towards our vision of a healthy, productive and globally competitive nation.

Sicily K. Kariuki (Mrs), EGH
Cabinet Secretary
Ministry of Health
Acknowledgements

The Kenya Harmonized Health Facility Assessment (KHFA) 2018 is a collective effort of multiple Health Data Collaborative partners at the global level that includes; The Global Fund, The World Bank, USAID, GAVI, PEPFAR/CDC, UNICEF, UNFPA, UN MDG, Health Envoy and WHO. The Kenya Harmonized Health Facility Assessment (KHFA) was implemented through a consultative approach involving Health Data Collaborative (HDC) Health Facility Survey working group of technical experts from partners, countries, academia, and civil society as a key deliverable of the HDC Operational Work plan 2016-17, while taking cognizance of all new actors under a devolved system of governance.

The KHFA succeeds other past initiatives that were aimed to provide information on the degree of preparedness of health facilities to offer services through the SARAM in 2013, SDI 2012 & 2018 and SPA in 2010 among others. Such initiative will provide baseline information needed for costing the health investments in the Kenya UHC Roadmap and the Kenya Health Sector Strategic and Investment Plan 2018-2023.

The preparation of the KHFA Survey would not have been possible without the support, hard work, and endless efforts of a large number of individuals and institutions. The team worked tirelessly to ensure the assessment was completed.

I wish to recognize the effort of the Policy Planning and Health Financing Department, specifically the Monitoring and Evaluation unit for their tireless efforts in coordinating this process. I commend the KHFA core team for guiding the process and facilitating the various working groups to steer this work to completion. In particular, I applaud the efforts by Dr Helen Kiarie and Dr Andreas Bjerrum (MOH, M&E), Dr Amani Siyam (WHO), Ashley Sheffel, Cosmas Leonard (WHO), Dr Hillary Kipruto, Dr Immaculate Kathure (USAID), Dr Joseph Mung’atu, William Watembo and Boniface Muganda in this respect.

Efforts of officers from other departments and programs towards this assessment and report writing were also commendable. Inputs and contributions from county technical teams, as well as development and implementing partners were similarly commendable.

The development of the KHFA 2018 was made possible through technical and financial support from our development partners to whom we are very grateful. Special mention goes to WHO, USAID, JICA, UNICEF, Global Fund and UNFPA for their immense support.

Lastly, we would like to take this opportunity to thank all those who in one way or the other participated and contributed in the making the KHFA assessment successful.

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Dr. Rashid Aman
Chief Administrative Secretary
Ministry of Health
Foreword

The Kenya health sector has re-aligned its policy and strategic direction in line with the Constitution of Kenya 2010. Health Service Delivery is one of the eight policy orientations specified in the Kenya Health Policy (KHP, 2014-2030). The Constitution of Kenya 2010 guarantees the highest attainable standard of health as a right while devolving governance to ensure improved service delivery, greater accountability, improved citizen participation and equity in the distribution of resources. Kenya’s Vision 2030 aims at transforming Kenya into a globally competitive and prosperous country with a high quality of life by 2030. The Kenya Health Policy 2014-2030 outlines the direction that the sector is taking to ensure significant improvements are made in the overall status of health in Kenya in line with the Constitution of Kenya 2010, the country’s long-term development agenda, Vision 2030 and global commitments such as the Sustainable Development Goals (SDGs).

The Government of Kenya has committed to providing Universal Health Coverage (UHC) under the “Big Four” agenda as part of socio-economic transformation by providing equitable, affordable and quality health care of the highest standard to all Kenyans. UHC will ensure that Kenyans receive quality, promotive, preventive, and curative and rehabilitation health services without suffering financial hardship. Kenya has drawn the Roadmap towards accelerating implementation of UHC agenda, determining the level of service availability, readiness, and quality of care across the sector.

Baseline information on service availability, readiness of health facilities to deliver services, quality of care offered, availability of human resources, leadership, governance, and quality of data is therefore required to inform strategic and operational planning and implementation processes for UHC in Kenya. As the country draws the Roadmap towards accelerating implementation of the UHC agenda, determining the level of service availability and readiness across the sector is paramount to progressive realization of 100% UHC by 2022.

The Kenya Harmonized Health Facility Assessment (KHFA) 2018 modules that were assessed include; Availability: Information relating to the physical presence of facilities, resources, and services, Readiness: Capacity of facility to provide specific services, Management & finance: Practices to support continuous service availability and quality, Quality & safety of healthcare: Includes indicators of the receipt of appropriate, effective and timely care by patients under safe conditions, and Community Unit: A qualitative assessment of the community structures via key informant interviews with Community Health workers and focus group discussions with clients in all 47 counties.

We look forward to working collaboratively across the national and county governments, partners, and all other stakeholders to ensure successful implementation of the findings.

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Susan N. Mochache, CBS
Principal Secretary
Ministry of Health
About the KHFA 2018

The Kenya Harmonized Health Facility Assessment (KHFA) 2018 was implemented by the Kenya’s Ministry of Health in collaboration with the development partners, who provided funding and technical support; USAID, WHO, JICA, UNICEF, UNFPA among others. The KHFA was implemented through a consultative approach involving Health Data Collaborative (HDC) Health Facility Survey working group of technical experts from partners, countries, academia, and civil society, while taking cognizance of all new actors under a devolved system of governance.

The KHFA succeeds previous assessments of health facilities’ preparedness to offer services; the Service Availability and Readiness Assessment and Mapping in 2013, SDI 2012 & 2018 and SPA in 2010 among others.

Purpose of the Survey

The rationale for the harmonized KHFA was two pronged, thus:

1. To provide external validation of information on service availability and readiness
2. To provide baseline information needed for planning health investments in Kenya through the UHC Roadmap towards achieving UHC by 2022, and the Kenya Health Sector Strategic and Investment Plan 2018-2023.

Target Users

National and county government, development partners, private sector, civil society organizations and the general public

Survey Methodology

The KHFA comprised five main modules:

1. **Availability**: collected information relating to the physical presence of facilities, resources, and services (e.g., building and utilities infrastructure, staff, beds, and availability of specific services)
2. **Management & finance**: collected information on practices to support continuous service availability and quality (e.g., management practices and supervisory practices)
3. **Readiness**: collected information on capacity of facility to provide specific services (e.g., presence of drugs, supplies, diagnostics, equipment)
4. **Quality of care**: collected information on the receipt of appropriate, effective and timely care by patients under safe conditions.
5. **Community module**: Utilized key informant interviews with community health workers in all 47 counties and focus group discussions, with mothers of children under age 2; qualitative data collected to understand the functionality and strength of the community structures, as well as to triangulate the findings of the other survey modules

The Kenya Health Master Facility List (KHMFL) was used as the sampling frame for the survey. Out of the 10,535 health facilities, 2,980 facilities were randomly sampled ensuring a representative sample for each of the 47 counties. The sample design for KHFA provides estimates at National up to County levels including urban and non-urban areas. The sample included health facilities of all types (dispensary, medical clinics, health centres, primary hospitals, and secondary hospitals) and all managing authorities (public, private, FBO/NGOs). Specialized health facilities such as eye hospitals, dental clinics and VCT centres were excluded. Data collection for the survey was conducted between November and December 2018 in all 47 counties.

This report is a summary of the key findings from the main KHFA 2018 report.
Survey Results
The data were successfully collected in 2,927 (98%) health facilities out of the targeted 2,980 health facilities.

2 General Service Availability

2.1 Health infrastructure
Based on KMHFL, the national health facility density was 2.2 per 10,000 population, and the country has achieved the WHO target of 2 per 10,000. However, 14 counties (30%) are below the target of 2/10,000.

The national average inpatient bed density is at 13.3 which is below the target of 25. In addition, the national average inpatient bed occupancy rate is (46%) which is below the target of 80%. The National Maternity bed density is 13.8/1000. This is above the target of 10/1000.

2.2 Health Workforce
The national core health workforce density is at 15.6/10,000. This is below the set target of 23/10,000. Only six counties have surpassed the global target: Tharaka Nithi (33.8), Nyeri (31.0), Uasin Gishu (28.2), and Nairobi (26.3) while for the majority of counties, health workforce density is below the set target.

Dispensaries
Overall, the average number of nurses (all categories) in dispensaries was 1 compared to a national norm for dispensaries of 4 revealing a 25% staffing level of nurses in dispensaries.

Availability of registered nurses averaged at 0.69 compared to a norm of 1 revealing a gap of 31 for every 100 dispensaries; the average number of enrolled nurses was 0.16 compared to 2 in the norms and the average number of registered midwives was 0.13 against a norm of 1 per dispensary shows a gap of 87 midwives per 100 dispensaries.

An average of 0.43 PHO’s were available against 1 in the norms and standards.
Figure 3: Distribution of health workforce density in counties, Kenya 2018
Health centres
Understaffing is evident in health centres for all staff other than the registered nurses and support staff.

While the norms and standards require a level 3 facility to have at least two medical officers (MOs), the survey revealed that an average, 0.23 MOs were available which implies that for every 100 facilities there were 23 medical officers revealing a gap of 177 medical officers.

In terms of clinical officers, the average number was 1.8 against the required 5. Among the nursing cadres assessed (Registered nurses, midwives, and enrolled nurses), only registered nurses met the norm of 2. Availability of enrolled and registered midwives was low at an average of 0.4 and 0.6 respectively against a norm of 3.

Primary hospitals
Generally, availability of all cadres at primary hospitals was below the norms. Nine private and seventy-four primary public hospitals reported having no doctor. As expected, nurses comprise the majority of staff in public primary hospitals with registered nurses being the most available. Availability of registered midwives was low, and this would be expected as training of the cadre has been halted.

Secondary hospitals
Secondary hospitals had a general inadequacy of all staff compared to the norms, meeting between a third and a half of required health workers. Only 20 medical officers were available compared to the 50 required while a third of the required nurses were available.

The least available cadre were dentists while pharmacists were the only cadre that met the norms. As far as private hospitals are concerned, Agha khan hospital reported the highest number of medical officers (74).

Figure 4: Health workforce norms and average health workers present in primary hospitals, Kenya 2018
2.3 Service utilization

Outpatient
The average number of outpatient visit per person per year nationally is **1.2**, below the national set target of **5**.

Inpatient
The national average for hospital discharges per 100 population is **3.8**, which is below the global target of **10**. None of the **47** counties attained the target of **10** hospital discharges per **100** population per year.

Service availability index
The index score for infrastructure was very high (**100**) while the index score for health workforce (**40.4**) and service utilization (**31.2**) were quite low.

This implies that there is poor utilization of health services by the population that is likely attributed to a shortage of health workers as well as barriers to accessing services.
3 General Service Readiness

General Service Readiness refers to the overall capacity of health facilities to provide general health services. Readiness is defined as the availability of components required to provide services such as basic infrastructure and amenities, basic equipment, standard precautions for infection control, laboratory tests, and medicines and commodities.

3.1 Basic amenities

Basic amenities comprise: Sanitation facilities; Communication equipment; Consultation room; Improved water source; Power supply (grid or generator); Emergency transportation; and Computer with internet access. On average, health facilities have 55% of basic amenities available on the day of the survey. Only 6% of the facilities have all basic amenities available on the day of the survey.

Figure 7: Mean availability of basic amenities by county, Kenya 2018

3.2 Basic equipment

Nationally, the mean availability of basic equipment stands at 77%. Only 24% of health facilities have all basic equipment items.

3.3 Standard precautions for infection prevention

Nationally, the mean availability of standard precaution for infection prevention items is 65%. Further, only 12% of health facilities have all items for standard precaution for infection prevention.
3.4 Diagnostic capacity

The mean availability of diagnostic tests is 56%. However, only 17% of health facilities have all the diagnostic items. Health facilities are most likely to have HIV diagnostic capacity (84%) and malaria diagnostic capacity (74%), while health facilities are least likely to have diagnostics for haemoglobin (30%).

Figure 9: Percentage of facilities with diagnostic capacity items available (N=2927), Kenya 2018
3.5 Essential medicines
The mean availability of essential medicines is 44%. None of the assessed health facilities had all essential medicines available on the day of the survey.

3.6 General service readiness
General service readiness refers to the overall capacity of health facilities to provide general health services and is defined as the availability of the five domains above: Basic amenities; Basic equipment; Standard precautions for infection prevention; Diagnostic capacity; Essential medicines.

The service readiness index for Kenyan health facilities is 59%, meaning that nearly 6 in 10 health facilities are ready to provide health services. The domain score was highest for equipment (77%) and lowest for essential medicines (44%)
4 Service specific availability and readiness

In addition to the general services, the HHFA also measures the availability and readiness of health facilities to offer specific health interventions.

4.1 Reproductive, Maternal, Neonatal, and Child Health services

4.1.1 Family planning

Service availability

Nationally, 85% of facilities sampled offered family planning services. Male condoms ranked highest at 78% followed by combined oral contraceptives (76%) and IUCD (75%) while the lowest services available were male and female sterilization (5% and 7% respectively).

Service readiness

The most available tracer items for family planning were BP apparatus (94%), condoms (85%), and injectable contraceptives (85%). Mean availability of FP tracer items in Kenya was 83% with only 57% of facilities having all 5 FP tracer items.

Figure 12: The distribution of the readiness of MNACH services across the counties, Kenya 2018
4.1.2 Antenatal care

Service availability

The national average of facilities offering ANC services is at 81%. The most widely available ANC services are iron supplementation (79%), monitoring for hypertensive disorder of pregnancy (79%), and folic acid supplementation (77%). The low percent in the provision of IPTp could be because only the malaria endemic areas/counties offer these services.
Figure 15: Percentage of facilities that offer antenatal care services (N=2927), Kenya 2018

Service readiness

Facilities had a mean of 61% of the tracer items, and only 4% of the facilities had all. The commonest tracer item available was tetanus toxoid vaccine (97%), followed by blood pressure apparatus (95%), then folic acid tablets (88%), and iron tablets (86%). The least available items were IPT drug (25%) and hemoglobin testing (31%)

Figure 16: Percentage of facilities that have tracer items for antenatal care services among facilities that provide that service (N=2541), Kenya 2018

4.1.3 Basic emergency obstetric and newborn care (BEmONC)

The facilities assessed on ability to offer BEmONC services were only those which offered delivery services (n=1683)

Service availability

Fifty percent of facilities in Kenya offer delivery services. On average, only 12% of the facilities which offered delivery services offered all 7 BEmONC signal functions. Among the 7 signal functions, the highest availability was parenteral administration of oxytocic drugs (87%), parenteral administration of antibiotics (81%) and neonatal resuscitation (70%). The lowest availability was assisted vaginal delivery (22%).

90% of secondary and tertiary hospitals offered delivery services with 75% offering all BEmONC signal. 98% public primary hospitals offered delivery services, however, only 33% were BEmONC compliant offering all 7 signal functions, which is very low
Service readiness

While mean availability of BEmONC availability seems good (68%) at a national average, the availability of all BEmONC tracer items is very low at 3%. The unavailability of even one tracer item could compromise the availability and quality of a lifesaving service to the mother and baby.

Figure 17: Map of BEmONC availability (all signal functions) by county, Kenya 2018

Figure 18: Percentage of facilities that have tracer items for basic obstetric and newborn care among facilities that provide delivery services (N=1683), Kenya 2018

4.1.4 Comprehensive emergency obstetric and neonatal care (CEmONC)

The CEmONC analysis only included hospitals offering delivery services (N=397) since lower level facilities are not expected to provide CEmONC services.
Service availability

Of the 411 hospitals sampled, 97% percent offered delivery services (n=397). Nationally, 68% of the hospitals offered caesarean section while 69% provided blood transfusion service. However, only 25% of hospitals provided CEmONC services (comprising of all 7 signal functions plus both caesarean section and blood transfusion). By hospital type, 78% of secondary and tertiary hospitals offered CEmONC services, while 21% of public primary hospitals offered CEmONC services.

Figure 19: Percentage of hospitals offering comprehensive obstetric care services by facility type (N=411), Kenya 2018

Service readiness

Nationally, the mean availability tracer items required for a facility to be considered ready to offer CEmONC services was 70% with 1% of facilities having all the tracer items.

Figure 20: Percentage of facilities that have tracer items for comprehensive obstetric care services among facilities that provide caesarean section (N=273), Kenya 2018

4.1.5 Essential medicines for mothers

The mean availability of essential medicines for mothers nationally was 40%, highest being Sodium chloride injectable solution at 78%, Gentamicin injectable at 71%, and benzathine benzylpenicillin powder for injection at
60%. The least available medicines for mothers were ampicillin powder for injection (11%), misoprostol cap/Tab (15%), and hydralazine (16%).

**Figure 21:** Percentage of facilities that have essential medicines for mothers observed in stock and valid (N=2927), Kenya 2018

4.1.6 Post-abortion care

**Service availability**

The National availability of PAC services is at 27%. All aspects of counseling for PAC (events leading to PAC, prevention of unwanted pregnancy, and associated risks) are covered during counseling sessions in 25% of visited facilities.

**Figure 22:** Map of post-abortion care availability by county, Kenya 2018

**Service readiness**

On average, facilities offering PAC services had 72% of the tracer items required to deliver the service, while 20% had all the tracer items. Sterile gloves were the most available items (96%) while antiseptics were the least available items (34%)
4.1.7 Postpartum care for mothers and newborns

Service availability

Overall, 71% of facilities offer postnatal care (PNC) for mothers as an outpatient service, while about half of all health facilities offer PNC care as an inpatient service. Similarly, 71% of facilities offer PNC for new-borns. The most common services provided include routine counselling on cord care and hygiene (98%), general counselling and counselling on danger signs in the new-born (97%), counselling on women and nutrition needs and counselling on child nutrition (96%).

Service readiness

Overall, percentage availability of all tracer items for inpatient PNC was very low (7%). The most common items are: thermometer (91%), visual and auditory privacy (86%), and antibiotics for maternal sepsis (84%). Chlorhexidine for new-born (56%) and ITNs (45%) for new-borns was the lowest. ITN availability for new-borns is low because these are only provided in malaria endemic areas.
4.1.8 Care for low birth weight and sick newborns

Service availability

93% offer outpatient services for LBW and sick newborns. All secondary and tertiary hospitals offer LBW and sick newborn care while 99% of public primary hospitals offer these services.

Service readiness

Overall, the mean availability of requisite tracer items for LBW and sick newborn care stood at 29% nationally with 53% having a bed for caregiver providing KMC, but only 4% had a register to record KMC on the day of the interview. Across all facilities, only 3% of facilities had both tracer items for LBW and sick newborn care.
4.1.9 Routine child immunization

Service availability

The national average percentage of facilities offering immunization services is 71%. Overall, 47% of facilities offered immunization services 5 days a week.

Figure 27: Map of child immunization availability by county, Kenya 2018
Service readiness

Mean availability of all the tracer items stood at 74% of all facilities assessed.

Overall, the percent of facilities that had all the identified requisite tracer items was only 3% of all the facilities assessed during this survey.

Figure 28: Percentage of facilities that have tracer items for child immunization services among facilities that provide this service (N=2192), Kenya 2018
4.1.10 Child health preventive and curative care services

Service availability
In all the health facilities sampled nationally, 89% offered preventive and curative care for under 5 years old children. ORS and zinc supplementation to children with diarrhoea was offered by 83% of health facilities, while 82% of facilities offered treatment of pneumonia. Iron supplementation was the lowest (56%).

Service readiness
Nationally, the mean availability of all tracer items was 68%, while only 2% of the facilities nationally had all the tracer items.

For diagnostic test, 76% of the facilities had the capacity to test for Malaria, 30% for Haemoglobin test and 21% capacity to test parasite in stool. Only 31% of facilities had a child and infant weighing scale.

Figure 29: Percentage of facilities offering key child preventive and curative care services (n=2927), Kenya 2018

Figure 30: Percentage of facilities that have tracer items for child preventative and curative care services among facilities that provide this service (N=2659), Kenya 2018
4.1.11 Essential medicines for children

The mean availability of essential medicines for children nationally was 56%. The highest available items were Paracetamol syrup 85%, ORS at 82%, and zinc sulphate tab/syrup 81%. The least available was Morphine granules injection/cap/tab at 10%, Ampicillin powder 11%, and Procaine penicillin at 27%.

Figure 31: Percentage of facilities that have essential medicines for children observed in stock and valid (N=2927), Kenya 2018

4.1.12 Adolescent health

Service availability

The national average of facilities offering adolescent health services is at 62%. HIV testing and counseling services being the highest with 77% while Provision of ART and Provision of intrauterine contraceptive device (IUCD) to adolescents were the least services with 32% each.

Service readiness

Overall 91% of facilities had HIV diagnostic capacity while 83% had condoms. 77% of facilities had tracer both items.

Figure 32: Percentage of facilities that offer adolescent health services (N=2927), Kenya 2018
4.2 Communicable diseases

Communicable diseases accounts for the highest proportion of disease burden in the country, with the leading causes being HIV/AIDS, malaria and TB. The most commonly available communicable disease service is malaria (91%). Eighty-five percent of Kenyan health facilities offer HIV counselling and testing and STI services. More than three-quarters of health facilities in Kenya offer PMTCT services. About 4 in ten health facilities offer TB services and HIV care and support services. The least available communicable disease service is ARV prescription and client management services.

4.2.1 Malaria

_Service availability_

It should be noted that while case management services should be offered across the whole Country, IPTp services are only offered in malaria endemic areas. Overall, 91% of health facilities in Kenya offer malaria diagnosis or
Among the services reported, facilities are most likely to offer malaria diagnosis (89%), followed by malaria treatment (45%) while the least offered service is IPT (28%).

Figure 35: Percentage of facilities that offer malaria services (N=2927), Kenya 2018

Service readiness
Among health facilities offering malaria services, 80% have malaria diagnostic capacity. Among health facilities offering malaria services, 79% have paracetamol capsule/tablets and 78% have the first-line antimalarial in stock on the day of the survey. ITNs are available in 73% of facilities located in malaria endemic counties while IPT drugs are available in 81% of facilities in malaria endemic counties. Overall, the mean availability of malaria tracer items is 79%. However, only 55% of facilities that offer malaria service have all items available on the day of the survey – first-line antimalarial, paracetamol, and malaria diagnostic capacity.

Figure 36: Percentage of facilities that have tracer items for malaria services among facilities that provide this service (N=2703), Kenya 2018

4.2.2 Tuberculosis diagnosis and treatment
Service availability
Overall, 42% of health facilities offer TB diagnosis and treatment services. Management and treatment follow-up for TB patients and provision of drugs to TB patients are the most likely TB services offered (both 37%), followed by prescription of drugs to TB patients (34%). Only 31% of health facilities offer TB diagnosis, while 26% offer TB diagnostic testing and 25% offer TB diagnosis by sputum smear microscopy examination. Only 11% of facilities offer TB diagnosis by rapid test. Only 4% offer TB diagnosis by culture.
The KHFA also assessed additional tuberculosis services, and the most available services were patient follow-up for adherence and drug supply which were offered in 38% of the facilities. This was closely followed by clinical follow-up, including drug prescription revision if needed and adverse drug reaction reporting at 37%. The least available additional tuberculosis services were assessing drug adherence problems that may be associated with adverse drug reactions at 17% and TB diagnosis among minor adolescents at 21% of the facilities.
Service readiness

Nationally, the mean availability of TB tracer items was 67%. Amongst the facilities offering TB services, 58% had all first-line TB medications, while only 25% have TB microscopy. Among health facilities offering TB services, 95% had HIV diagnostic capacity and 89% had a system for diagnosis of HIV among TB clients. Among health facilities that offer TB diagnosis and treatment services, only 18% had all TB tracer items.
Mean readiness to offer additional TB services was 35%. No facility had all the additional TB tracer items. Less than half of facilities that offer TB services had supplies for coughing patients like waste receptacle 47%, sputum cup 36%, masks for covering 23%, and tissues 22%. Thirty-four percent of facilities had a system for sending sputum outside facility and receiving results. In 60% of facilities, faculty staff routinely fast-track coughing patients for clinical and diagnostic evaluation.

Figure 42: Percentage of facilities that have tracer items for additional TB services among facilities that provide this service (N=1427), Kenya 2018
4.2.3 Drug resistant tuberculosis (DRTB) diagnosis and treatment

Service availability

Only 24% of facilities in Kenya provide any services for drug resistant TB. Facilities are more likely to follow-up drug resistant patients for adherence (17%), perform contact tracing for patients with DRTB (17%), facilitate social support for patients with DRTB (15%), and provide the drugs for drug resistant TB patients (15%). Only 6% of the facilities diagnose drug resistant TB at the facility while 12% of health facilities diagnose by referral.

Figure 43: Map of drug resistant tuberculosis service availability by county, Kenya 2018
Service readiness

Mean service readiness for drug resistant TB was 17%, while only 1% of facilities had all drug resistant TB tracer items. The KHFA showed that 28% of facility staff were screened for TB in the last 12 months before the survey and national treatment medicines for drug resistant TB were available in 18% of the facilities.

Figure 44: Percentage of facilities that have tracer items for drug resistant tuberculosis services among facilities that provide this service (N=882), Kenya 2018

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>All facility staff screened for TB in last 12 months</td>
<td>28%</td>
</tr>
<tr>
<td>Facility capacity or system for testing rifampicin drug resistance externally, with documented feedback on results</td>
<td>4%</td>
</tr>
<tr>
<td>National treatment medicines for drug resistant TB</td>
<td>18%</td>
</tr>
<tr>
<td>Mean availability of tracer items</td>
<td>17%</td>
</tr>
<tr>
<td>Percent of facilities with all items</td>
<td>1%</td>
</tr>
</tbody>
</table>

4.2.4 HIV/AIDS and STIs

Service availability

In Kenya, 85% of the health facilities offer Counselling and testing services and 76% provide Prevention of Mother to Child Transmission (PMTCT) services. The least offered HIV/AIDS services in the health facilities are Care and support (40%) and ARV Prescription/ARV treatment follow-up services (35%).

4.2.5 HIV/AIDS counselling and testing

HIV testing and counselling has been made accessible to Kenyans up to their doorstep.

Service availability

Overall, 85% of facilities in Kenya offer HIV counseling and testing services.

Figure 45: Map of HIV counseling and testing availability by county, Kenya 2018
Service readiness

The mean availability of tracer items for HIV counselling and testing services nationally was 75%, while the percentage of the facilities which reported to have all tracer items for HIV counselling and testing readiness was 43%.

Health facilities were most likely to have HIV diagnostic capacity (94%) and least likely to have rooms with visual and auditory privacy (52%). Only 78% of health facilities providing counseling and testing had condoms available on the day of the survey.
4.2.6 HIV/AIDS care and support services

**Service availability**

Overall, 40% of health facilities offer HIV/AIDS care and treatment services. Facilities are most likely to offer treatment of opportunistic infections (39%), family planning counselling (38%), and provision of condoms to clients (37%). The services least available at health facilities are the treatment of Kaposi’s Sarcoma (3%) and IV treatment of fungal infections (10%).
Service readiness

Nationally the mean availability of tracer items for HIV care support was 63%, while the percentage of facilities with all HIV care and support tracer items was 3%.

Among facilities that offer HIV care and support service, 62% of the facilities had a system for diagnosis of TB among HIV+ clients. More than 80% of health facilities that offer HIV care and support services had the following items: co-trimoxazole cap/tab (87%), condoms (82%), and palliative care pain management (81%).

Nearly three-quarters (72%) of these facilities have intravenous solution with infusion set, while half have all first line TB medications. Only 7% of facilities that offer HIV care and support services have IV treatment for fungal infection.
Figure 50: Percentage of facilities that have tracer items for HIV care and support services among facilities that provide this service (N=1338), Kenya 2018

<table>
<thead>
<tr>
<th>Tracer Item</th>
<th>Diagnostics</th>
<th>Medecines and Commodities</th>
<th>Readiness Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>System for diagnosis of TB among HIV+ clients</td>
<td></td>
<td></td>
<td>62%</td>
</tr>
<tr>
<td>Co-trimoxazole cap/tab</td>
<td></td>
<td></td>
<td>67%</td>
</tr>
<tr>
<td>Condoms</td>
<td></td>
<td></td>
<td>82%</td>
</tr>
<tr>
<td>Palliative care pain management</td>
<td></td>
<td></td>
<td>61%</td>
</tr>
<tr>
<td>Intravenous solution with infusion set</td>
<td></td>
<td></td>
<td>72%</td>
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<tr>
<td>All first line TB medications</td>
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<td></td>
<td>50%</td>
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<td>IV treatment fungal infection</td>
<td></td>
<td></td>
<td>7%</td>
</tr>
<tr>
<td>Mean availability of tracer items</td>
<td></td>
<td></td>
<td>63%</td>
</tr>
<tr>
<td>Percent of facilities with all items</td>
<td></td>
<td></td>
<td>5%</td>
</tr>
</tbody>
</table>

4.2.7 HIV/AIDS antiretroviral prescription and client management services

Service availability

Overall, 35% of facilities offered ARV prescription or ARV treatment follow-up services. One-third (34%) of facilities provided treatment follow-up for persons on ART, and one-third (34%) of facilities offered ART prescription.

Figure 51: Map of ARV service availability by county, Kenya 2018
Service readiness
Among facilities that offer ARV treatment or ARV follow-up services, the ARV service readiness was 27% nationally. Only 4% of facilities that offered ARV treatment or ARV follow-up services had all ARV tracer items. Overall, 83% of facilities that offered ARV treatment or ARV follow-up services had the three 1st line ARVs.

**Figure 52:** Percentage of facilities that have tracer items for ART services among facilities that provide this service (N=1239), Kenya 2018

<table>
<thead>
<tr>
<th>Medical Service</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete blood count (CBC)</td>
<td>16%</td>
</tr>
<tr>
<td>Renal function test</td>
<td>13%</td>
</tr>
<tr>
<td>Liver function test</td>
<td>12%</td>
</tr>
<tr>
<td>CD4 or viral load</td>
<td>8%</td>
</tr>
<tr>
<td>3 first line ARVs</td>
<td>83%</td>
</tr>
</tbody>
</table>

Figure 53: Map of ARV readiness by county, Kenya 2018

4.2.8 PMTCT Services

**Service availability**
In Kenya, 76% of health facilities offered PMTCT services. Kenyan health facilities were most likely to offer HIV counseling and testing to HIV+ pregnant women, and least likely to offer HIV counseling & testing to infants born to HIV+ pregnant women. This is likely because testing pregnant women requires an RDT test at site, while testing infants requires DBS testing that is sent to the National Reference Laboratory. Above 60% of health facilities offered the following services: family planning counseling to HIV+ women (69%), nutritional counseling for HIV+ women & their infants (69%), infant & young child feeding counseling (67%), and ARV prophylaxis to
HIV+ women (66%). Only 43% of facilities offered ARV prophylaxis to newborns born to HIV+ pregnant women.

Figure 54: Percentage of facilities that offer PMTCT service (N=2927), Kenya 2018

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV counselling &amp; testing to HIV+ pregnant women</td>
<td>76%</td>
</tr>
<tr>
<td>Family planning counselling to HIV+ women</td>
<td>74%</td>
</tr>
<tr>
<td>Nutritional counselling for HIV+ women &amp; their infants</td>
<td>69%</td>
</tr>
<tr>
<td>Infant &amp; young child feeding counselling</td>
<td>69%</td>
</tr>
<tr>
<td>ARV prophylaxis to HIV+ women</td>
<td>69%</td>
</tr>
<tr>
<td>ARV prophylaxis to newborns born to HIV+ pregnant women</td>
<td>43%</td>
</tr>
<tr>
<td>HIV counselling &amp; testing to infants born to HIV+ pregnant women</td>
<td>29%</td>
</tr>
</tbody>
</table>

Figure 55: Map of PMTCT availability by county, Kenya 2018

**Service readiness**

Among facilities offering PMTCT services, the mean readiness score was 54%, while only 19% had all PMTCT tracer items. Ninety-three percent of facilities that offered PMTCT services had HIV diagnostic capacity for adults and 84% had a room with visual and auditory privacy. Among PMTCT medicines and commodities, health facilities were most likely to have maternal ARV prophylaxis (44%), followed by nevirapine syrup (40%), and then zidovudine syrup (34%). Only 31% of facilities that offered PMTCT services had DBS for diagnosing newborn HIV.
4.2.9 Pediatric HIV services

Service availability

Six in ten facilities in Kenya offered any paediatric HIV services or referral of children to HIV care and treatment services elsewhere.

The most commonly available paediatric HIV services were HIV testing and counseling (HTC) for children age 5-9 (64%) and HTC to minor adolescents age 10-19 (61%). More than half of facilities offer HTC to children under 5 (56%). Nearly one-third of facilities offer ART for paediatric HIV patents, while only 31% of facilities offer HIV care and support services for children.
Service readiness
Overall, the mean availability of pediatric HIV tracer items was 32%, but only 3% of health facilities had all pediatric HIV tracer items. The most available tracer item was cotrimoxazole syrup or dispersible tables (77%) followed by nevirapine (NVP) syrup (48%).
4.2.10 Sexually transmitted infection services

Service availability
In Kenya, 85% of health facilities offered STI services. Nearly all hospitals offered STI services; 100% of secondary & tertiary hospitals, 99% of public primary hospitals, and 99% of private/NGO/FBO primary hospitals. More than 80% of dispensaries and medical clinics also offered STI services.

Service readiness
The mean availability of STI tracer items was 72%, but only 28% of facilities that offered STI services had all the STI tracer items. Facilities were most likely to have ciprofloxacin (78%) and condoms (76%). Less than 70% of facilities that offer STI services had ceftriaxone injectable (69%) and metronidazole (67%).
4.2.11 Neglected tropical diseases

Service availability

Thirty-one percent of facilities nationally offered any service for Neglected Tropical Diseases (NTDs). Nearly 3 in 10 facilities offered soil transmitted helminths diagnosis and treatment and 15% offered Schistosomiasis diagnosis and treatment. Availability of other NTD services and tracer items are below 10%.

Service readiness

Overall, the NTD service readiness index was 35%, meaning that in average facilities had 35% of the tracer items. The least available NTD tracer items were diagnostic capacity for lymphatic filariasis (LF) (17%), rapid test for Dengue (6%), diagnostic capacity for visceral leishmaniasis (VL) 6%, and Kato Katz test for helminth (3%). The least available medicine and commodity was Ivermectin 5% to treat parasitic infections.
4.3 Non-communicable disease services

Nationally, availability of management and diagnosis of cardiovascular diseases was highest at 62% while diagnosis of cervical cancer was lowest at 22%. Some facilities reported that they offered NCD services, however they did
not have the requisite items necessary to provide the services. Half of the facilities (50%) that reported to offer chronic respiratory disease management did not have the requirements while more than three quarters (85%) of those that reported to offer cervical cancer diagnosis had the necessary requirements.

Figure 66: Availability of non-communicable disease services (N = 2927), Kenya 2018

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage of Facilities Offering Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular disease</td>
<td>62%</td>
</tr>
<tr>
<td>Chronic respiratory disease</td>
<td>61%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>56%</td>
</tr>
<tr>
<td>Cervical cancer diagnosis</td>
<td>22%</td>
</tr>
<tr>
<td>Breast cancer</td>
<td>20%</td>
</tr>
<tr>
<td>Mental and neurological care</td>
<td>13%</td>
</tr>
<tr>
<td>Rehabilitation care</td>
<td>4%</td>
</tr>
<tr>
<td>Palliative care</td>
<td>3%</td>
</tr>
<tr>
<td>Colorectal cancer diagnosis</td>
<td>2%</td>
</tr>
</tbody>
</table>

4.3.1 Diabetes

Service availability

More than half (58%) of diabetes care services were available countrywide. The services are available at 100% of the tertiary, secondary and primary hospitals as well as private, NGO/FBO facilities.

Figure 67: Map of diabetes care service availability by county, Kenya 2018

Service readiness

Of the 11 tracer items, on average, about two-thirds (63%) of the items were available with only 4% of the facilities having all the tracer items. Regarding equipment, the blood pressure apparatus was available in 97% of the
facilities. The most available medicine was Metformin at 73% while the least available was the Gliclazide or glipizide tablets at 12%.

Figure 68: Percentage of facilities that have tracer items for diabetes services among facilities that provide this service (N=1722), Kenya 2018

![Percentage of facilities that have tracer items for diabetes services among facilities that provide this service (N=1722), Kenya 2018](image)

4.3.2 Cardiovascular disease services

**Service availability**

Countrywide, 62% of all facilities provides CVD services. All secondary and tertiary hospitals reported having CVD services. In terms of managing authority, majority (71%) of the private facilities offer CVD services while slightly above half (53%) of government facilities did.

Figure 69: Map of CVD availability by county, Kenya 2018

![Map of CVD availability by county, Kenya 2018](image)
Service readiness

The average availability of tracer items for CVD across the country was about two-thirds of items (64%). Of all the CVD tracer items, availability of oxygen was the lowest (16%) with stethoscope and blood pressure apparatus joint highest at 96%. The basic diagnostic equipment (stethoscope, blood pressure apparatus and adult scale) for CVD were available in more than 85% of facilities. All the tracer items were available only in 8% of facilities.

Figure 70: Percentage of facilities that have tracer items for CVD services among facilities that provide this service (N=1821), Kenya 2018

4.3.3 Chronic respiratory disease (CRD)

Service availability

Overall, 61% of the health facilities assessed reported to be offering chronic respiratory disease diagnosis and/or management services. Chronic respiratory disease diagnosis and/or management services was more likely available in hospitals than other facility types (varying from 95% in hospitals and 48% in dispensaries).

Figure 71: Map of CRD availability by county, Kenya 2018
Service readiness

Only 1% of health facilities reported to be having all the tracer items for the diagnosis and/or management of CRDs. The rest of the tracer items i.e. peak flow meter, spacers for inhalers and oxygen had a low coverage at 11%, 22% and 16% respectively.

Figure 72: Percentage of facilities that have tracer items for CRD services among facilities that provide this service (N=1802), Kenya 2018

4.3.4 Cervical cancer

Service availability

KHHFA survey showed cervical cancer services were offered in 22% of the facilities sampled. Secondary and tertiary hospitals were leading in cervical cancer diagnosis at 90% with dispensaries at 15%.

Figure 73: Percentage of facilities that offer cervical cancer services, by county (N=2927), Kenya 2018

Figure 74: Map of cervical cancer availability by county, Kenya 2018
Service readiness

Among health facilities that were providing diagnosis and / or management of cervical cancer, none of the health facilities assessed had all the items. On average, only 32% of the items were available. A high proportion of the facilities (91%) had speculum and 79% had acetic acid, while 4% had colposcopy equipment and only 1% had histopathology services.

Figure 75: Percentage of facilities that have tracer items for cervical cancer services among facilities that provide this service (N=693), Kenya 2018

4.3.5 Breast cancer

Service availability

20% of facilities reported offering screening for or diagnose of breast cancer. The service mostly offered was manual breast examination with other services for screening and diagnosis ranging very low: ultrasound (3%), core needle biopsy (2%), and mammography (1%).
Service readiness

Nationally the average availability of tracer items for breast cancer care was 4%. Morphine availability was 15% making it the most available tracer item. 24% of secondary and tertiary hospitals had all tracer items while none of the other levels of care had all items available.

4.3.6 Prostate cancer

Service availability

Availability of prostate cancer services was low with only 7 % of facilities reporting that they screen for, diagnose or treat prostate cancer. 80% of secondary and tertiary facilities offered prostate cancer services followed by private and primary hospitals at 48%.

Service readiness

The mean availability of tracer items was 56%, and 22% of facilities that offered prostate cancer care had all the items. Diagnostics used for prostate cancer were more readily available compared to medicines and technologies
4.3.7 Colorectal cancer

Service availability
Nationally, the provision of colorectal cancer services was low across the country with only 2% of all health facilities. Out of the facilities in the urban areas, 4% offer the services compared to 1% in the rural areas.

Service readiness
The average availability of tracer items for colorectal cancer was 15% among the 77 facilities that said they offer colorectal cancer services. While fecal occult blood test is the one of the most common tests for colorectal cancer, the test was done in only 27% of facilities.

4.3.8 Mental and neurological care

Service availability
Nationally, 13% of the facilities offer at least one mental health service with secondary and tertiary hospitals (90%) leading in the provision of the services. The most commonly available mental health service is treatment of mental disorders such as depression, psychosis, or bipolar disorder (12%) along with treatment for epilepsy (12%). The least available services were inpatient wards for mental health or neurology (2%)
Service readiness

The tracer medicines for mental health services were largely available in facilities offering the services. On average facilities have 70% of the items required to deliver mental health services and 45% of facilities offering mental health services had all the tracer items. The most widely available tracer item was medicines used as antiepileptics (93%) while the least available tracer item was medicines used in psychosis (59%).

Figure 81: Percentage of facilities that have tracer items for mental and neurological care services among facilities that provide this service (N=429), Kenya 2018

4.3.9 Services for victims of violence and sexual abuse

Service availability

Nationally, 31% of healthcare facilities are able to provide the necessary healthcare services to victims of violence and sexual abuse as per the survey. Services for both victims of child maltreatment and youth violence were offered by 17% of the facilities. The least available service was forensic assessment and examination at 8%.
4.3.10 Palliative care

Service availability

Availability of palliative care is dismally low in Kenya, with only 3 percent of the facilities country wide indicating to have the service. Only 1% of health facilities nationally offer home-based care and only 1% of health facilities offer facility linkages with home-based services.

Service readiness

The mean availability of tracer items for palliative care was 59% for the 140 facilities providing the service. The percentage of facilities with all tracer items was 7% nationally. The most available tracer item was iron/iron with folic acid (90%) while the lowest was intravenous nutritional supplement (17%).

4.3.11 Rehabilitation care

Service availability

Countrywide, only 4% of the facilities provided rehabilitation care services. Secondary hospitals were the major providers of the service at 90% while the lowest was dispensaries at 1%.
Service readiness

The mean availability of tracer items for rehabilitative care services was 36% nationally.

Figure 84: Percentage of facilities that have tracer items for rehabilitation care services among facilities that provide this service (N=181), Kenya 2018

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Readiness Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedicated therapy treatment space</td>
<td>67%</td>
</tr>
<tr>
<td>Measuring tape / Goniometer</td>
<td>52%</td>
</tr>
<tr>
<td>Walking frames / crutches / walking sticks</td>
<td>61%</td>
</tr>
<tr>
<td>Compression bandages / tibigrip</td>
<td>43%</td>
</tr>
<tr>
<td>Height adjustable treatment bed / plinth</td>
<td>33%</td>
</tr>
<tr>
<td>Upper limb exercise equipment (weight / pulleys / TheraBand)</td>
<td>32%</td>
</tr>
<tr>
<td>Patient education materials</td>
<td>31%</td>
</tr>
<tr>
<td>Casting and splinting kit</td>
<td>29%</td>
</tr>
<tr>
<td>Equipment for pediatric rehabilitation (mats / toys / walking frames / standing frames)</td>
<td>26%</td>
</tr>
<tr>
<td>Parallel bars</td>
<td>23%</td>
</tr>
<tr>
<td>Audiometric equipment and booth</td>
<td>9%</td>
</tr>
<tr>
<td>Mean availability of items</td>
<td>4%</td>
</tr>
<tr>
<td>Percent of facilities with all items</td>
<td>36%</td>
</tr>
</tbody>
</table>

4.4 Surgical services

4.4.1 Basic surgery

Service availability

More than 80% of the facilities offer basic surgical services the major ones being suturing, incision and drainage of abscesses, acute burn management and removal of foreign body.

Figure 85: Percentage of facilities that offer basic surgical services (N=2927), Kenya 2018

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offers basic surgical services</td>
<td>81%</td>
</tr>
<tr>
<td>Suturing</td>
<td>79%</td>
</tr>
<tr>
<td>Incision and drainage of abscesses</td>
<td>76%</td>
</tr>
<tr>
<td>Acute burn management</td>
<td>62%</td>
</tr>
<tr>
<td>Removal of foreign body</td>
<td>50%</td>
</tr>
<tr>
<td>Wound debridement</td>
<td>43%</td>
</tr>
<tr>
<td>Male circumcision</td>
<td>43%</td>
</tr>
<tr>
<td>Closed repair of dislocated joint</td>
<td>10%</td>
</tr>
<tr>
<td>Closed repair of fracture</td>
<td>9%</td>
</tr>
<tr>
<td>Hydrocele reduction</td>
<td>7%</td>
</tr>
<tr>
<td>Biopsy of lymph node or mass or other</td>
<td>7%</td>
</tr>
<tr>
<td>Chest tube insertion</td>
<td>5%</td>
</tr>
<tr>
<td>Cricothyroidotomy</td>
<td>4%</td>
</tr>
</tbody>
</table>

Service readiness

Only (1%) of the facilities country wide is equipped with all the 15 tracer items that are necessary for a facility to offer basic surgical services. On average there is 24% availability of the 15 tracer items in the facilities that provide basic surgical services country wide.
4.4.2 Comprehensive surgery

Service availability

Nationally, 68% of hospitals provide comprehensive surgical services. About 50% of public primary hospitals offer comprehensive surgical services.

Figure 87: Percentage of hospitals that offer comprehensive surgical services (N=411), Kenya 2018
Service readiness

The mean availability of tracer items in the hospitals that offer comprehensive surgical services was 70% while the percentage of facilities with all the tracer items was 7%. Government managed facilities have a mean availability of tracer items of 67% while the percentage of facilities with all the items is 6%.
4.4.3 Blood transfusion

*Service availability*

Countrywide, only 7% of facilities provided blood transfusion services. Most of the secondary and tertiary health facilities offered blood transfusion services and more than half of all public primary hospitals offered blood transfusion services.

Figure 90: Map of blood transfusion readiness by county, Kenya 2018
**Service readiness**

Some facilities were offering blood transfusion albeit with minimum tracer items. In the whole country only 10% of facilities that offered blood transfusion services had all tracer items for blood transfusion. The mean availability of tracer items was 50% in all the facilities.

Figure 91: Percentage of facilities that have tracer items for blood transfusion services among facilities that provide this service (N=323), Kenya 2018

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Diagnostics</th>
<th>Medicines and Commodities</th>
<th>Readiness Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood storage refrigerator</td>
<td>50%</td>
<td></td>
<td>77%</td>
</tr>
<tr>
<td>Blood typing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross match typing</td>
<td>30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood supply safety</td>
<td></td>
<td></td>
<td>90%</td>
</tr>
<tr>
<td>Blood supply sufficiency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean availability of tracer items</td>
<td>50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of facilities with all items</td>
<td>10%</td>
<td></td>
<td>61%</td>
</tr>
</tbody>
</table>

4.4.4 General emergency care

**Service availability**

The analysis of general service availability was limited to hospitals (N=411).

71% of hospitals provided 24 hour pharmacy services, 67% provided 24 hours laboratory services while only 8% provided 24 hour surgical services that include a surgeon and anesthetist.

25% of hospitals had a special emergency unit while 20% of hospitals had a dedicated emergency unit that operates for 24 hours.

Figure 92: Map of general emergency service availability by county (N = 2,927), Kenya 2018
Figure 93: Percentage of hospitals that offer general emergency services (N=411), Kenya 2018
Service readiness

Figure 94: Percentage of facilities that have equipment and medicines for general emergency services among facilities that provide this service (N=2236), Kenya 2018

Service readiness

20% of facilities had all the items, while the mean availability was at 68%. Adrenaline and atropine were the most available medicines at above 80% while sodium bicarbonate was available in 62% of the facilities. Pediatric intubation set was the least available in only 27% of the facilities while the adult oropharyngeal airway set was available in 50% of the facilities.

4.4.5 Emergency care: Quality support services

Service availability

About half of all facilities could measure vital signs in the ER unit/OPD, perform emergency delivery and administer uterotonic drug. About 40% could perform neonatal resuscitation.

Figure 95: Percentage of facilities that offer emergency quality support services (N=2927), Kenya 2018

Service readiness

Nationally, the mean availability of tracer items for emergency quality support services was 93% with 85% of facilities have all tracer items.
4.4.6 Emergency care: Airway interventions

Service availability

77% of hospitals reported ability to perform suction while 68% use of manual manoeuvres as an intervention. Surgical technique to create an airway was the least reported at 28% in the assessed facilities.

Service readiness

17% of facilities had all the items with mean availability at 50%. Suction apparatus with a suction catheter was the most available at 68% while the least available was the cricothyroidotomy or tracheostomy set at 24%.
4.4.7 Emergency care: Breathing
The highest available intervention was administration of oxygen followed by critical therapies for reactive airway disease at 78% and 76% respectively.

Service availability

Mean availability of items was 45% in the facilities, with resuscitation bag and mask being the highest available at 62% and the least being paediatric intubation equipment at 36%.
Figure 100: Percentage of hospitals that have tracer items for emergency breathing intervention services among hospitals that provide this service (N=387), Kenya 2018

<table>
<thead>
<tr>
<th>Item</th>
<th>Equipment</th>
<th>Medicines and Commodities</th>
<th>Readiness Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resuscitation bag and mask (adult)</td>
<td>62%</td>
<td>59%</td>
<td>56%</td>
</tr>
<tr>
<td>Pulse oximeter</td>
<td>56%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chest tubes with insertion set</td>
<td>44%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paediatric intubation (Endotracheal tubes, intubation mask)</td>
<td>36%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Micronebulizer, beclomethasone and salbutamol inhaler</td>
<td>16%</td>
<td>33%</td>
<td>45%</td>
</tr>
<tr>
<td>all items</td>
<td>8%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.4.8 Emergency care: Cardiac interventions

Service availability
Administration of medicines i.e. adrenaline, aspirin, and thrombolytics was the most offered at 88%, 67%, and 32% respectively.

Figure 101: Percentage of hospitals that offer emergency cardiac intervention services (N=411), Kenya 2018

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration of adrenaline</td>
<td>88%</td>
</tr>
<tr>
<td>Administer aspirin for ischemia</td>
<td>67%</td>
</tr>
<tr>
<td>Perform and interpret ECG</td>
<td>32%</td>
</tr>
<tr>
<td>Administration of thrombolytics</td>
<td>32%</td>
</tr>
<tr>
<td>Perform external defibrillation and/or cardioversion</td>
<td>20%</td>
</tr>
<tr>
<td>Perform external cardiac pacing</td>
<td>16%</td>
</tr>
<tr>
<td>Perform pericardiocentesis</td>
<td>12%</td>
</tr>
</tbody>
</table>

Service readiness
The mean availability ranged from 19% to 61%. However, a majority of counties lacked facilities that had all the items. 15% of secondary and tertiary facilities had all the items.
4.4.9 Emergency care: Control of bleeding interventions

**Service availability**

Availability of the services was relatively low with only 58% of facilities sampled reporting that they can perform packing and/or suture as a control to bleeding while 6% could apply pelvic binding or sheeting.

**Figure 103: Percentage of facilities that offer emergency control of bleeding intervention services (N=2927), Kenya 2018**

- Perform packing or suture control: 58%
- External control of haemorrhage: 55%
- Apply arterial tourniquet: 32%
- Perform and interpret point of care ultrasound: 9%
- Ability to perform safe transfusion (including protocols for appropriate ratios for massive transfusion): 7%
- Apply pelvic binding or sheeting: 6%

**Service readiness**

Out of the sampled facilities that reported to offer emergency care services, only 12% reported that they can apply a tourniquet as an intervention to arrest bleeding.

4.4.10 Emergency care: Volume resuscitation interventions

**Service availability**

Only 65% of facilities reported to provide oral rehydration. Establishing an intraosseous access, venous cut down, and placing a peripheral IV access were below 10%, while the other methods ranged from 34% to 64%.
Service readiness

Oral rehydration salts were the highest available at 85% and the lowest was device for intraosseous injection at 3%. By facility type, secondary and tertiary facilities had a mean availability of 70% while dispensaries and medical clinics had a mean availability of 40% and 41% respectively.

4.4.11 Emergency care: Injury specific interventions

Service availability

The highest available service was performing appropriate initial wound care (62%) while the least available intervention was performing fasciotomy or escharotomy for compartment syndrome at 3%.
Service readiness

Availability of tracer items was quite low with the mean availability at 17%. The most available being the tetanus vaccine at 52% while the rabies vaccine was available in 9% of facilities. The least available item was the cervical collar at 3% only.

Figure 107: Percentage of facilities that have tracer items for emergency injury specific intervention services among facilities that provide this service (N=xx), Kenya 2018

4.4.12 Emergency care: Sepsis interventions

Service availability

Nationally, most facilities administered IV antibiotics (66%) as an emergency sepsis intervention while few facilities performed diagnostic paracentesis (8%).
Service readiness
Nationally, the mean availability of the tracer items for emergency sepsis interventions was at 36% whereas only 3% of the facilities had all the tracer items. Generally, administration of antibiotics for management of sepsis was the most available tracer item (68%).

4.4.13 Emergency care: Seizure interventions
Service availability
Availability of medicines used to manage seizures ranged from 9% to 31% with the most available being benzodiazepine.
4.4.14 Emergency care: Unconscious patient interventions

Service availability

50% of all the assessed facilities could check the blood glucose level, while 52% could administer glucose for hypoglycaemia.

Service readiness

Mean availability of items was at 3% with only 1% of facilities having all the items. The most available item was glucose while the least available was antidote for opiate overdose.
4.5 Medicines

WHO defines essential medicines as the medicines that satisfy the priority health care needs of the population. Tracer medicines are used to examine access in terms of availability of essential medicines.

On average, tracer medicines for infectious diseases had the highest availability (70%) and medicines for mental health and neurological disorders had the lowest availability (21%). Availability of drugs for non-communicable diseases was however moderate to low (42%) with less than half of facilities having most of the assessed drugs.
Figure 114: Mean availability of 25 essential medicines by county (N=2927). Kenya 2018

4.5.1 Infectious disease medicines
Nationally, the highest available tracer item was dewormers (mebendazole or albendazole) caps/tab at an average of 85% while fluconazole (antifungal) caps/tab was the least available tracer item at an average of 45%.

Figure 115: Availability of 7 infection diseases medicines. (N=2927), Kenya 2018

4.5.2 Non-communicable disease medicines
Nationally, paracetamol was the most available tracer medicine at an average of 77% while Isosorbide dinitrate and Glyceryl trinitrate sublingual tablet were the least available tracer medicines at an average of 2% each.
4.5.3 Mental health and neurological medicines
Nationally, Phenobarbital tablets was the most available tracer medicine at an average of 58% while Lithium tablet and Lorazepam injection were the least available tracer medicines at an average of 1% each.

4.5.4 Palliative care medicines
Nationally, Paracetamol was the most available tracer item for palliative care at an average of 77% while Lorazepam tablets was the least available at an average of 2%.
4.5.5 Medicine Pricing

From the list of the 32 drug commodities assessed, price data was analysed for eight commodities that were conveniently selected, amongst them an antibiotic, an antifungal cream, a tocolytic, an inhaler and an injectable antibiotic.

For level 5 and 6 hospitals, the ratio for patient to procurement prices ranged from 0.6 to 3.15. This means that, for some of the commodities the clients are paying a lower price than the procurement price while for other commodities like Amoxicillin 500mg capsule, clients are paying 3 times more. The ratio of procurement price to the international reference prices ranged from 1.97 to 0.38, this means that for Amoxicillin 250mg dispersible tab, hospitals are paying almost twice what other countries are paying. Across the level 4 hospitals, the range of the patient price to procurement price ratio was 0.22 to 4.00 meaning that for ibuprofen, clients are paying 4 times the procurement price and for amoxicillin 250mg dispersible tablets the clients are paying about 20% of the procurement price. Across health centres and dispensaries, the patient median price is KShs. 0 as expected given that the government abolished user fees in government level two and three facilities.
4.6 Advanced diagnostic services and diagnostic equipment

4.6.1 Advanced diagnostic services

The performance of counties in availability of urine dipstick was generally high. Ten counties reported the highest availability at 100% while two counties had the lowest performance of below 30%.
4.6.2 High level diagnostic equipment

The mean availability of high-level diagnostic equipment nationally was 41%, while the ultrasounds was the most available diagnostic equipment at 62% and the least available diagnostic equipment was CT scan at 13%.

5 Quality and safety

5.1 Systems for Quality of Care

5.1.1 Quality improvement team

Slightly above half (53%) of facilities countrywide have QI teams. Higher level facilities had more QI teams compared to lower level facilities. 95% of all the secondary and tertiary hospitals had QI teams compared to 43% of dispensaries and medical clinics.
5.1.2 Budget for QI activities
Nationally, a dedicated budget line for QI activities was available at 42% of facilities.

5.1.3 Health workers’ continuous professional development (CPD) system
Generally, 44% of facilities have a system in place for regular (at least quarterly) continuous medical education to ensure professional development of medical officers, nurses and clinical officers.
5.1.4 Adverse event reporting system
Nationally, 40% of health facilities with inpatient services countrywide had a system for identifying and monitoring adverse event such as patient falls and hospital acquired infections. A review of performance by health service delivery level shows that the majority of secondary and tertiary hospitals (90%) had a system for identifying and monitoring adverse events while only 3% of dispensaries had such a system.

5.1.5 Infection control monitoring system
One third (30%) of facilities countrywide had infection control monitoring systems and Availability of infection control monitoring systems was variable across counties. The tendency of health facilities to monitor adherence to IPC guidelines increased with the level of health facility. Only 23% of dispensaries, 28% of medical clinics, and 37% of health centers monitored adherence compared to 61% of primary hospitals and 80% of secondary and tertiary hospitals.
5.2 Monitoring of quality of care at the facility level

5.2.1 System for verification of health worker licenses
Slightly over a third (39%) of health facilities in Kenya reported that they routinely verify their health professionals’ license and registration status. Further, 23% of public facilities had a system in place for verification of health workers’ licenses.

5.2.2 Process for performance review based on data on facility services, outcomes, or patient feedback
Almost half (49%) of facilities in Kenya routinely reviewed their performance based on facility data or patient feedback. The majority of hospitals had a system in place for performance review. Health centers and dispensaries had lower availability of these systems.
5.2.3 Supportive supervision system for health workers
Nationwide, most (71%) health facilities reported that they had received a supportive supervision visit within the past three months. While the majority of public facilities (85%) had received supportive supervision in the last three months, this was not the case for private facilities which was much lower at 53%.

5.2.4 System for including community representation on management committees
Just about half (49%) of health facilities in the country reported a system for community representation on management committees.
5.2.5 Systems for measuring patient experience of care

Only 38% of facilities had systems in place for measuring patient experiences. A higher proportion of hospitals had systems in place compared to health centres, dispensaries and medical clinics.

5.2.6 Inpatient mortality reviews

Nationally, 38% of facilities with inpatient services conduct inpatient mortality reviews. While all referral hospitals (secondary and tertiary hospitals) reported that they conducted mortality reviews, the proportion among primary hospitals and health centres with inpatient capabilities was much lower at 69% and 34% respectively. There was a marked disparity by managing authority, with only 30% of private sector facilities reporting availability of mortality and morbidity reviews compared to government (43%) and NGO/FBO facilities (52%).
5.2.7 Systematic monitoring on the use of medicines

Nationally, 51% of facilities have systematic monitoring on the use of medicines. While there was little variation in the availability of systematic monitoring on the use of medicines by managing authority (i.e. governmental vs. non-governmental), hospitals demonstrated higher availability of systematically monitoring the use of medicines as compared to primary care facilities.

Figure 134: Availability of systematic monitoring on the use of medicines by facility type and managing authority (N=2927), Kenya 2018

5.3 Facility adherence to standards

5.3.1 Facility participates in external accreditation licensing

Nationally, only 24% of facilities countrywide participated in periodic external accreditation process. Government owned facilities were less likely to have participated in an external accreditation process (17%) compared to NGOs/FBOs (30%) facilities and private facilities (31%).

Figure 134: Availability of systematic monitoring on the use of medicines by facility type and managing authority (N=2927), Kenya 2018
5.3.2 Proper disposal of sharps waste

Nationally, 70% of health facilities had proper disposal of sharps waste available. There was little variation in the availability of proper disposal of sharps waste by facility type (64% - 76%) and by managing authority (65% - 77%).

5.3.3 Pharmaceutical commodity storage conditions

Nationally, only 22% of health facilities had adequate pharmaceutical commodity storage conditions. Only secondary and tertiary hospitals scored above 50% for availability of adequate pharmaceutical commodity storage conditions which presents a grim picture about pharmaceutical commodity storage conditions across all facility types.
5.3.4 Vaccine storage conditions
Nationally, 77% of facilities have adequate vaccine storage condition.

5.3.5 Outbreak preparedness plans
Nationally, only 4% of facilities have outbreak preparedness plans
5.3.6 Guidelines on identifying and managing drug use problems

Nationally, 39% of facilities have guidelines on identifying and managing drug use problems. There was significant variation by facility type. Most (80%) of the secondary and tertiary hospitals, public primary hospitals (70%), and private/NGO/FBO hospitals had scored above 65% while health centres, dispensaries, and medical clinics all scored below 50%.
6 Management and Finance

6.1 Management systems to support facility functionality, efficiency, and accountability
Two thirds (67%) of facilities reported having a core management team responsible for oversight of the day to day functioning of the facility, while half of the facilities (52%) reported having core management team structured as per norms and standards. Furthermore, 37% of facilities reported having a routine system for including community representation for some aspects of the management teamwork. Additionally, 28% of the facilities had conducted a meeting in the quarter preceding the survey. Only 21% of the facilities had a functional community unit.

Figure 141: Percentage of facilities with management systems to support facility functionality, efficiency, and accountability (N=2927), Kenya 2018

6.2 Implementation of systems to improve accountability
Slightly above half (53%) of facilities reported having a system for determining clients’ opinions. Despite the requirement for management teams to routinely review client’s feedback, only 18% of facilities reported reviewing or reporting on client opinions routinely.
6.3 Facility-level external supervision for management

Generally, majority (94%) of facilities reported receiving external supervision such as from the sub county, county or national level. There were however gaps in documentation with only 59% of facilities reporting having documentation of the supervisory visits received within the last three months.

6.4 Drug management systems

6.4.1 Main source of pharmaceutical commodity supplies

Over half (52%) of facilities reported KEMSA as their main source of routine pharmaceutical commodity supplies. Secondary and tertiary hospitals as well as public primary hospitals reported KEMSA to be the main source at 58% and 89% respectively.
6.4.2 Pharmaceutical commodity reporting systems
Nationally, majority of health facilities (73%) had records showing pharmacy commodities received, disbursed, and the balances. Only about a half of facilities (54%) had evidence to show that they regularly removed expired or unusable drugs.

6.5 Infection prevention and control monitoring system
Nationally, 38% of health facilities have IPC guidelines. The least available were guidelines for cleaning facilities and personnel trained an IPC course both at 15% of facilities. Secondary and tertiary facilities reported an 85% availability of IPC guidelines while dispensaries and medical clinics reported 39% and 31% respectively.
6.6 Systems for maintenance and repair

Below half (43%) of health facilities reported undertaking preventive and corrective maintenance for any systems and only 10% of facilities had systems for corrective maintenance of medical equipment. Only 13 counties (28%) reported facilities carry out preventive and corrective maintenance for any systems.

Figure 148: Map of availability of preventative and corrective maintenance for infrastructure by county, Kenya 2018

6.7 Facility use of information for management

6.7.1 Systems for ensuring quality of routine data

About half (47%) of the facilities reported to have routine and systematic process for checking the quality of data compiled for reports. Only 10% of facilities had policy guidelines for data quality checking while about a quarter of facilities had data improvement plans and teams (26% and 23% respectively). Only 10% of the health facilities have a written policy/guideline for data quality checking.
6.7.2 Evidence of use of service information and data for planning and management

Nationally, 34% of facilities have a routine process for performance review based on data on facility services, outcomes, or patient feedback. Evidence of use of patient survey data was found in 15% of the facilities while evidence of use of mortality data was found in 14% of the facilities. Implementation of employee satisfaction surveys was the least implemented at 11% of facilities. 28% of facilities had evidence for use of HMIS reports (e.g., numbers of patients, numbers by diagnoses).

Figure 150: Percentage of facilities with evidence of use of service information and data for planning and management (N=2927), Kenya 2018
6.8 Systems for monitoring indicators of quality of inpatient care

6.8.1 Systems for monitoring indicators of quality of inpatient care

Nationally, 59% of facilities reported to be having a system for identifying and monitoring adverse events, such as patient falls or infections. About 73% of facilities conducts death reviews for some proportion of deaths.

Figure 151: Percentage of hospitals with systems for monitoring indicators of quality of inpatient care among hospitals with inpatient services (N = 392), Kenya 2018

Figure 152: Map of availability of systems for reporting adverse events by county, Kenya 2018

6.8.2 Facility monitoring of case fatality rates

28% of health facilities reported monitoring of case fatality rates for any specific diagnoses. By facility type, performance ranged from 17% in public primary hospitals to 48% in secondary facilities.
6.8.3 Facility monitoring of inpatient cases
Of 33% of facilities reported to monitor deaths within 30 days of admission for any identified. 35% of facilities monitored admissions for conditions where quality outpatient follow-up can reduce the need for hospitalization.

6.9 Adverse event reporting guidelines
A third of facilities (31%) had guidelines on submission of adverse events while a quarter (25%) reported documenting the review process for compiled reports on adverse events. 23% of the facilities had notes/reports that show evidence of review and plan of action for the reports about adverse events.
6.10 Use of unique patient identifiers

While most facilities (90%) were using unique patient ID numbers for any patients, utilization of same ID from year to year was only in a third (33%) of facilities. Half (50%) of facilities utilized a standardized set of forms or electronic data entry screens to comprise a complete medical record for each patient.

6.11 Accountability for user fees

Nationally, 40% of facilities reported charging user fees for any outpatient services and 16% charged for any inpatient services. Regarding the managing authority, only 10% of government facilities were charging user fees with majority being hospitals. Despite the policy directive to abolish user fees in public primary health care facilities, a sizeable percentage of health facilities in the counties continue to charge user fees.

36% of the facilities posted user fees for outpatient services anywhere for patients to see while 34% of the facilities posted user fees for inpatient services for patients to see.
Figure 157: Percentage of facilities with user fees for outpatient and inpatient services, Kenya 2018

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility charges user fees for any outpatient services</td>
<td>40%</td>
</tr>
<tr>
<td>User fees for outpatient services posted anywhere so that patients can see them</td>
<td>36%</td>
</tr>
<tr>
<td>Facility charges user fees for any inpatient services</td>
<td>18%</td>
</tr>
<tr>
<td>User fees for inpatient services posted anywhere so that patients can see them</td>
<td>34%</td>
</tr>
</tbody>
</table>

6.12 Financial accountability

Of 47% of facility reported having received an annual external audit of facility accounts. 52% of the facilities has a budgeted annual work plan (2018/19).

Figure 158: Percentage of facilities with budgeted work plans and external audits of facility accounts, Kenya 2018

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility has a budgeted annual work plan (2018/19)</td>
<td>50%</td>
</tr>
<tr>
<td>Facility receives an annual external audit of facility accounts</td>
<td>47%</td>
</tr>
</tbody>
</table>
6.13 Health insurance coverage

6.13.1 Health insurance for inpatients
In 17% of facilities, only between 1% and 25% of inpatients had any kind of health insurance. In 14% of facilities, between 76% and 99% of patients had insurance, while only 6% of facilities reported to have received 100% of inpatient services in the facility had any type of health insurance.

6.13.2 Health insurance for outpatients
In almost one fifth of facilities, only between 1% and 25% of outpatients had any kind of insurance, and only 2% of facilities reported to have received 100% of outpatient services in the facility had any type of health insurance.
7 Community module

The services that expected to be delivered through the community health services are available albeit in a suboptimal manner. Several barriers limit the accessibility of health services at community and health facility level. These include costs associated with travel to the health facilities, and negative attitudes of some health workers at the facility level. The readiness to provide services is undermined by several structural and organizational barriers that should be addressed to promote the functionality of the community health services and prepare the path for universal health coverage. Overall, there are glaring gaps in the implementation of the community health services with noticeable disparities across the counties in relation to the number of functional CHUs, CHVs, CHCs and the CHEWs. Together, these gaps compromise the readiness to deliver community health services and ultimately, access and utilization of services provided at level 1 and 2 of the healthcare systems.

8 Cross-cutting country performance: inequities

The lowest inequalities were observed in specific service readiness (Concentration coef = 0.02145 and Gini Coef = 0.04995) with the highest inequalities being experienced in the general service availability distribution across the counties. The top three domains’ distributions to address include the general service availability, quality of care as well as Management and Finance.
The main source of the inequality was due to health workforce distribution across the counties (concentration coefficient = 0.02624 and Gini Coefficient = 0.26976). On the other hand, health services infrastructure and service utilization were found to have a more even distribution. Therefore, in order to improve general service availability equity, it will be useful to have equitable distribution of the health workforce across the counties.
9 Conclusions and recommendations

9.1 Conclusions

- Most of the essential services were available. However, availability was affected by a number of missing components in every service package. For instance, infrastructure was available but with inadequate staffing.
- General service availability: health facility infrastructure is in place in all counties thought witnessing low utilization levels.
- Inequalities were also witnessed across the counties in the general service availability distribution with the contributory factor being health workforce.
- The most impressive services that were beyond an availability of 75% include family planning, ANC, care for low birth weight and sick newborns, child health preventive and curative care services, malaria services, HIV/AIDS counselling and testing, PMTCT services, sexually transmitted infections and basic surgery.
- The lowest availability, below 25%, was cervical cancer, breast cancer, prostate cancer, colorectal cancer, mental and neurological care, palliative care, rehabilitation care, and blood transfusion.

9.2 Service Readiness

- There was evidence that most of the facilities were ready to offer services with more than two thirds of the tracer items available.
- Despite being ready, health facilities are not maintaining all the tracers as a package, as witnessed by extremely low proportions of the health facilities with all the tracers under respective service areas.
- An impressive readiness of tracer items, above 75%, was witnessed in the areas of family planning services, Malaria services, as well as HIV/AIDS counselling and testing.
- Low levels of readiness of tracer items, below 25%, was observed in postnatal care for mothers and newborns, breast cancer, colorectal cancer, and basic surgery.
9.3 Quality and Safety

- The quality of health service delivery across the country is generally inadequate based on the parameters covered in the survey.
- Wide variations exist across the counties between levels and types of care, in private, NGO/FBO and private facilities in both urban and rural area.
- There is therefore need for targeted interventions to improve quality of care based on the needs of the different counties.

9.4 Management and Finance

- There was evidence of management practices starting from the management systems that were in place in a majority of the facilities, guidelines and what was found to be practiced on the ground.
- However, the levels of these practices are rather low.

9.5 Community systems

- The services that expected to be delivered through the community health services are available albeit in a suboptimal manner. Several barriers limit the accessibility of health services at community and health facility level. These include costs associated with travel to the health facilities, and, negative attitudes of some health workers at the facility level.
- Overall, there are glaring gaps in the implementation of the community health services with noticeable disparities across the counties in relation to the number of functional CHUs, CHVs, CHCs and the CHEWs.
- Together, these gaps compromise the readiness to deliver community health services and ultimately, access and utilization of services provided at level 1 and 2 of the healthcare systems.