

Uganda Service Availability and Readiness Assessment 2012

Summary Report



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Service Availability and
Readiness Assessment 2012

Summary Report



Republic of Zambia
Ministry of Health

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Abbreviations and acronyms

| | |
|---------------|---|
| ACT | Artemisinin-based combination therapy |
| AIDS | Acquired immune deficiency syndrome |
| ALT | Alanine aminotransferase |
| ANC | Antenatal care |
| ART | antiretroviral therapy |
| ARV | Antiretroviral |
| BCG | Bacillus Calmette–Guérin |
| BEmOC | Basic emergency obstetric care |
| CBC | Complete blood count |
| CEmOC | Comprehensive emergency obstetric care |
| CRD | Chronic respiratory disease |
| DBS | Dried blood spot |
| DTP | Diphtheria, Tetanus, Pertussis |
| EPI | Expanded programme on immunization |
| HC | Health centre |
| HIB | Haemophilus influenzae type b |
| HIV | Human Immunodeficiency Virus |
| HMIS | Health management information system |
| IMEESC | Integrated management for emergency and essential surgical care |
| IMCI | Integrated management of childhood illness |
| IMPAC | Integrated management of pregnancy and childbirth |
| IPT | Intermittent Preventive Treatment |
| ITN | Insecticide-treated bed nets |
| IUCD | Intrauterine contraceptive device |
| IV | Intravenous |
| MDR-TB | Multi-drug resistant tuberculosis |
| MNACH | Maternal, neonatal, child, and adolescent health |
| NCD | Non-communicable disease |
| ORS | Oral rehydration solution |
| PFP | Private-for-profit |
| PMTCT | Prevention of mother-to-child transmission |
| PNFP | Private-not-for-profit |
| RDT | Rapid diagnostic test |
| SARA | Service availability and readiness assessment |
| SP | Sulfadoxine-pyrimethamine |
| STI | Sexually transmitted infection |
| TB | Tuberculosis |
| UDHS | Uganda demographic and health survey |
| UNICEF | The United Nations Children's Fund |
| UNFPA | United Nations Population Fund |
| USAID | United States Agency for International Development |
| WHO | World Health Organization |

Introduction

Uganda is a land-locked country located in the Eastern part of Africa bordered by Kenya in the east, Tanzania and Rwanda in the south, Democratic Republic of Congo in the West and Southern Sudan in the North. Currently the population is estimated at 33 million people¹. Uganda has had a turbulent political past with several civil wars which has greatly impacted social service provision. While Uganda has registered impressive economic growth in the last few decades, there remain huge gaps in service delivery partly due to limited resources and budgetary allocations. From the late 80s, Uganda has been affected by a generalized HIV/AIDS epidemic which reached a prevalence of over 30% in some subpopulations. This partly has greatly impacted health care service delivery as a substantial part of the health budget shifted to managing the HIV/AIDS epidemic. Currently life expectancy at birth is 48 years for males and 57 years for females². The low life expectancy is partly attributed to HIV/AIDS-related mortality.

Uganda has a high total fertility rate standing at 6.2 in 2011, a decrease from 6.7 in 2006³. Over the same period, contraceptive prevalence rate increased from 18% to 26%. While 95% of pregnant women attend antenatal clinics at least once during pregnancy, only 59% deliver in a health care facility. This proportion, although still low presents an increase from 42% in 2006. About 71% of health care facilities surveyed in the Uganda SPA (2007) offered ANC, 31% offered postpartum care, 63% offered tetanus toxoid injection and 30% offered all 3 services. Fifty percent of facilities offered normal delivery- with 36% of staff having received routine training on delivery services in the past 12 months. Approximately 5% of facilities offered caesarean section while only 11% and 9% of all hospitals and health centre IV offered basic and comprehensive emergency obstetric care respectively⁴. Malaria is a major cause of morbidity and mortality especially among pregnant women and under-five children. Among women surveyed in 2011, 68% of those who had been pregnant in the past two years prior to the survey took at least one dose of antimalarials and only 25% took the recommended two doses. In the same survey it was estimated that 64.5% of children under the age of five years who had a fever in the past two weeks took antimalarials. Overall, 60% of children under-five years sleep under an insecticide treated net. In the 2007 SPA survey, it was estimated that malaria treatment was offered in 98% of facilities with 15% facilities having at least one clinician trained in standard treatment of malaria in the last 12 months before the survey. Just about 26% of facilities had laboratory diagnostic capacity for testing malaria. In 2011, about 52% of children aged 12-23 months were fully vaccinated compared to 42% in 2006. DPT3 and measles coverage stood at 72% and 76% respectively in 2011. About 80% of children with acute respiratory infection sought treatment from a health care facility while 73% of those with diarrhea sought care. According to the Uganda SPA 2007, about 64% of facilities provided all 3 basic child health services including out-patient curative care for sick children, routine childhood immunization services under EPI, and routine growth monitoring services.

HIV/AIDS and tuberculosis are major causes of mortality in Uganda. According to the AIDS Indicator Survey 2011, HIV prevalence in Uganda stands at 7.3%, an increase from 6.4% in 2004/5⁵. Although there has been marked increase in the proportion of individuals ever tested and received results for HIV from 13% in 2004/5 to 56% in 2011, many people do not know their status. Only 40% of those who tested positive in the survey knew their status before the survey. Fifty percent of all those eligible for ART are on treatment. About 80% of women who tested HIV positive in ANC or at delivery were given ARV or were already on ARV but only 48% of the babies took ARV. In 2007, about 57% of facilities offered ARV prophylaxis to prevent mother to child transmission of HIV with 72% of staff in those facilities having PMTCT received training. About 29% of facilities reported having HIV testing services, with 57% offering treatment for opportunistic infections, 8% offering ART (84% for hospitals). While 98% of facilities reported treating STIs only 61% offered the services for at least 5 days in a week and 45% had drugs for treating the 4 main STIs.

1 UBOS: <http://www.ubos.org/?st=pagerelations2&id=17&p=related%20pages%202:Population>

2 WHO: <http://www.who.int/countries/uga/en/>

3 UDHS 2011 Preliminary Report: <http://www.measuredhs.com/pubs/pdf/PR18/PR18.pdf>

4 USPA 2007: <http://www.measuredhs.com/pubs/pdf/SPA13/SPA13.pdf>

5 UAIS 2011: <http://www.measuredhs.com/pubs/pdf/AIS10/AIS10.pdf>

It is estimated that the incidence of tuberculosis in Uganda is 209 per 100, 000 while the case detection rate is only 61%. About 30% of all health facilities offer tuberculosis diagnostic services with over 98% of all hospitals and health centre IV offering the service and 87% of these have first line TB drugs.

Against this background of huge burden of disease and limited access to and utilization of health care services, it is imperative that assessment of current status and trends in service availability and readiness are routinely carried out for purposes of taking timely corrective action in order to remain on track and be able to attain set goals.

Organization of health care service delivery

Like other social services, health care service delivery in Uganda is decentralized with the district as the local service and administrative authority. However, overall standards, guidelines, training, supervision, national health planning and capital development remain functions of the Ministry of Health. National and Regional referral hospitals are also under the direct control of the Ministry of health while district hospitals and lower health Centers are under the District Health Management Teams. A parallel private health care sector runs alongside the public sector and this can be divided into private health practitioners and private-not-for-profit. At a district level, operationally all public and private facilities are graded into 5 categories according to level of functionality with a district hospital being level 5 and the community being level 1.

Nationally, health care service planning, implementation and monitoring is guided by a rolling 5 year National Health Sector Strategic and Investment Plan, in which national priorities are set, and strategies of reaching the desired targets outlined. Health sector financing is primarily from Central government, donors and supplemented by local district revenue. To a limited extent, government also provides grants to a limited number of qualified private-not-for-profit facilities.

The primary source of information for planning is from the Health Management and Information System supplemented by occasional national surveys such as the Demographic and Health Surveys (DHS) and Service Provision Assessment (SPA) among others. Lately there has been increased demand for information for planning and service improvement. To be able to increase confidence in and utility of the routinely collected HMIS data, a Data Quality Assessment of the HMIS data was carried out in 2011 and it is expected that this will be done annually. Additionally, there has been increased demand for more regular service provision assessments, as opposed to the 5 years SPA surveys, to help improve quality and quantity of health care in a timely manner.

Objectives of the SARA survey

The 2012 Service Availability and Readiness Assessment (SARA) for Uganda was conducted to assist the health sector in assessing and monitoring service readiness and capacity at district and health facility levels; assessing the equitable and appropriate distribution of service and resources as well as providing the sector with skills and tools for monitoring service and resource availability on a more regular basis with limited external support. The SARA provides key information on the state of the health system in terms of service availability (e.g. density of health facilities and beds, core health workers, service utilization), as well as the readiness of the facilities to provide an adequate level of service (e.g. availability of trained staff, diagnostics, equipment and medicines), both for general health services and for specific key health interventions (e.g. maternal child and newborn health, HIV/AIDS, tuberculosis, malaria and sexually transmitted infections). Monitoring facility-level performance provides information on whether health services are present and are being provided at the expected level, and gives an indication of how investments in the formal health sector are resulting in changes at the level of service delivery. This affects utilization of services and ultimately impacts population-level outcome measures. The SARA can also be used to assess data quality of the routine HMIS data. The SARA endeavors to inform the country progress and performance review process. The outcome of this assessment should be used to provide input into the annual health reviews as well as the annual planning processes.

The survey generates a set of tracer indicators of service availability and readiness that can be used to:

- Detect change and measure progress in health system strengthening over time. Assess and monitor progress in health system strengthening within the broader context of Monitoring and Evaluation (M&E) of national health strategies;
- Plan and monitor scale up of interventions key to achieve MDGs and other targets (e.g. interventions to reduce child and maternal mortality, HIV/AIDS, tuberculosis, malaria) and better respond to the increasing burden of chronic diseases;
- Generate the evidence base to feed into country annual health reviews to better inform the development of annual operational plans and to guide more effective country and partner investments;
- Support national planners in planning and managing health systems (assessing equitable and appropriate distribution of services and resources, etc).

The survey is designed to generate a set of core indicators on key inputs and outputs of the health care system, which can be used to measure progress in health system strengthening over time. Tracer indicators aim to provide objective information about whether or not a facility meets the required conditions to support provision of basic or specific services with a consistent level of quality and quantity.

Survey background

A rapid service readiness assessment was conducted to fill critical data gaps in service delivery and data quality using the WHO/USAID Service Availability and Readiness Assessment (SARA) tool, as a primary data source for the analytical review and annual health sector performance report 2011/12. The assessment included a review of health facility records for the purpose of data verification, to assess the reliability of facility reporting to the HMIS. A sample of 102 health facilities in five districts across five geographical zones in the country (based on UDHS regions: central 1 and 2, eastern and eastern central, west and south west, north and west Nile, and Kampala), plus 3 regional referral hospitals was selected for inclusion in the survey, to obtain a snapshot of service readiness and data quality across the country. One district was sampled randomly from each of the five zones, and 20 to 25 facilities were selected from each district⁶.

The questionnaire was adapted to country specific requirements and national treatment guidelines. Twenty data collectors (nurses, clinical officers, students, interns) and five field supervisors were trained in early August 2012 on the data collection methodology, questionnaire content, and electronic data collection tools. Field work took place over a period of three weeks and was completed by the end of August. Analysis is based on standard tracer indicators for service readiness for key health services including maternal and child health services and diagnosis and treatment of infectious and non-communicable diseases. All results were weighted to reflect the distribution of health facilities in the country. Only national level results are shown for the current assessment – a larger sample would be required to show breakdowns by region/district, facility type and managing authority.

Table 1 shows the key characteristics of the facilities covered in the assessment. There were 95 facilities included in the final data set for the analysis: five facilities in Bukedea were non-functional (all facilities in Bukedea were covered and therefore there were no replacement facilities), and data for two facilities in Oyam were missing. Two facilities in Mbarara and three facilities in Kampala were not available to be assessed and were replaced by the closest facility of the same type and managing authority.

Table 1: Key characteristics of the 2012 SARA sample

| | Total number of facilities | Number of facilities in sample |
|-------------------------------------|----------------------------|--------------------------------|
| Facility type | | |
| Hospital | 143 | 11 |
| HC IV | 190 | 12 |
| HC III | 1177 | 23 |
| HC II | 3470 | 49 |
| Managing authority | | |
| Public | 2679 | 60 |
| Private (PFP and PNFP) | 2301 | 35 |
| Zone (District) | | |
| Central 1 & Central 2 (Mpigi) | 824 (29) | 20 |
| Eastern & Eastern Central (Bukedea) | 953 (16) | 12 |
| West & South West (Mbarara) | 1099 (60) | 19 |
| North & West Nile (Oyam) | 734 (25) | 24 |
| Kampala | 1370 | 20 |
| Total | 4980 | 95 |

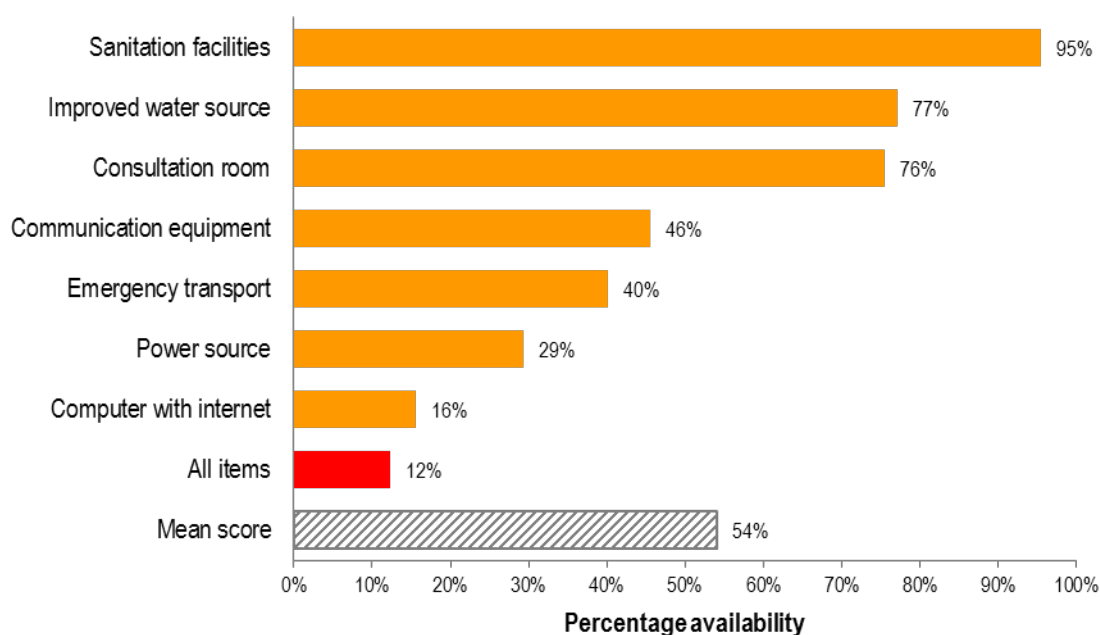
⁶ For districts that had 25 or fewer facilities, all facilities were included in the sample. For larger districts, facilities were stratified by facility type (hospitals, HC IV, HC II & III) and a sample of 20 facilities was drawn, with an oversampling of hospitals and HC IVs.

General service readiness

BASIC AMENITIES

Providing an enabling working environment is a requirement for an effective and functional health care delivery system. Such enabling environment includes the physical infrastructure and the availability of basic requirements for delivering quality services. Service readiness for basic amenities was assessed based on the availability of the following tracer items: power supply (grid or generator), communication equipment, improved water source, sanitation facilities, consultation room with visual and auditory privacy, computer with internet access, and emergency transportation. Figure 1 shows the percentage of facilities with these tracer items.

Figure 1: Percentage of facilities that have basic amenities (N = 95)



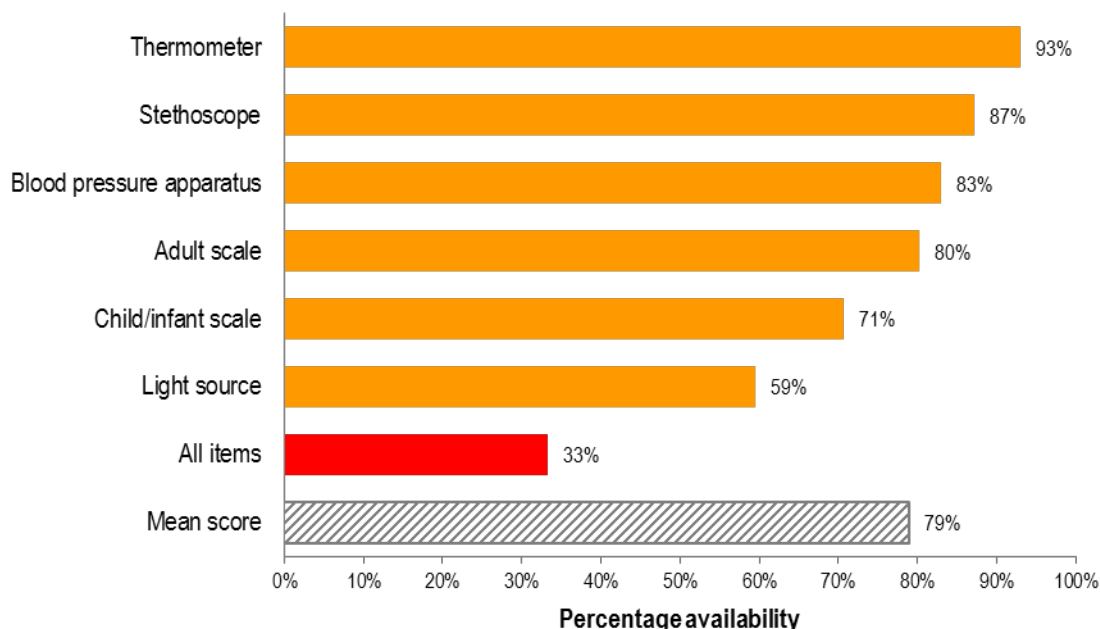
Few facilities (12%) had all seven items in 2012; on average facilities had four of the seven tracer items for an overall readiness score of 54%. Most facilities had sanitation facilities (95%), improved water source (77%), and a consultation room (76%); but only 29% had a power source⁷ and 16% had a computer with internet.

⁷ Includes grid power or generator as a general power source for the facility; solar power for vaccine storage refrigerators are not included.

BASIC EQUIPMENT

Service readiness for basic equipment was assessed based on the availability of the following tracer items: adult weighing scale, child/infant weighing scale, thermometer, stethoscope, blood pressure apparatus, and light source. Figure 2 shows the percentage of facilities with these tracer items.

Figure 2: Percentage of facilities that have basic equipment (N = 95)



One in three facilities had all six items; on average facilities had five of the six tracer items for an overall readiness score of 79%. Most equipment items showed relatively high availability, with a light source being the least common item, available in 59% of facilities.

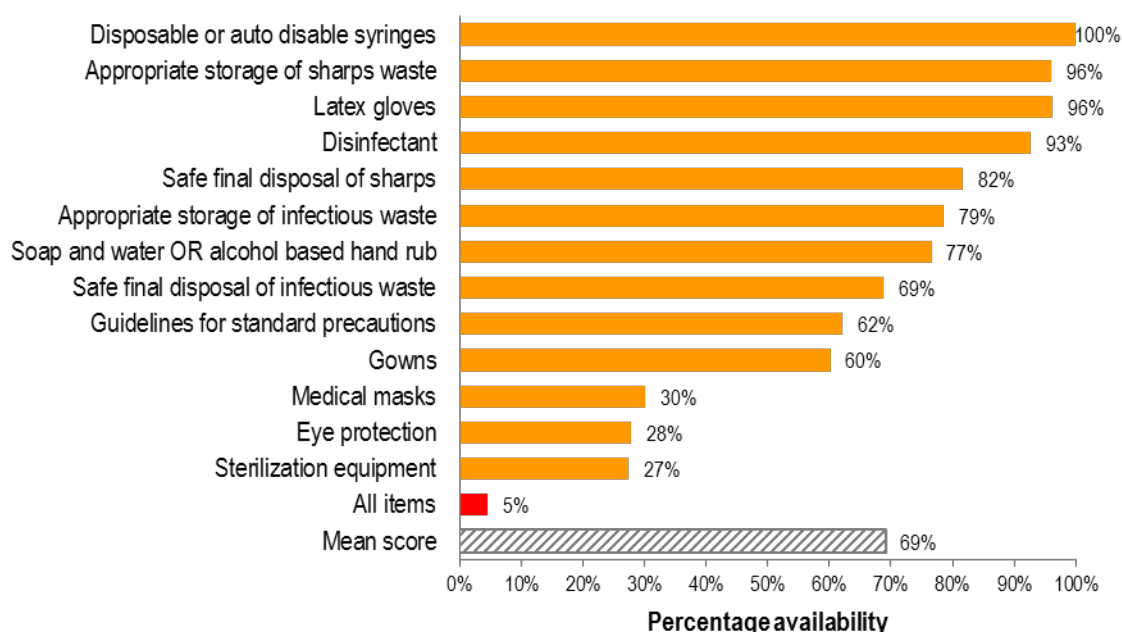
STANDARD PRECAUTIONS FOR INFECTION PREVENTION

Safety is an essential part of the health service delivery system. Health workers must be able to work in a safe working environment and must be provided with all the safety training and equipment they need to carry out their duties. They must also be able to render services to their patients in the safest manner, which means using the best standard safety precautions. Disposing of needles and medical products properly, sterilizing medical equipment appropriately and disinfecting restrooms and work areas are among the basic safety standard precautions expected in health facilities.

Service readiness for standard precautions was assessed based on the availability of the following tracer items: sterilization equipment, safe disposal of sharps, safe disposal of infectious wastes, sharps box, waste receptacle, disinfectant, disposable or auto-destruct syringes, soap and water or alcohol-based hand rub, latex gloves, masks, gowns, eye protection, and guidelines on standard precautions.

Figure 3 shows the percentage of facilities with these tracer items.

Figure 3: Percentage of facilities that have standard precautions for infection prevention (N = 95)

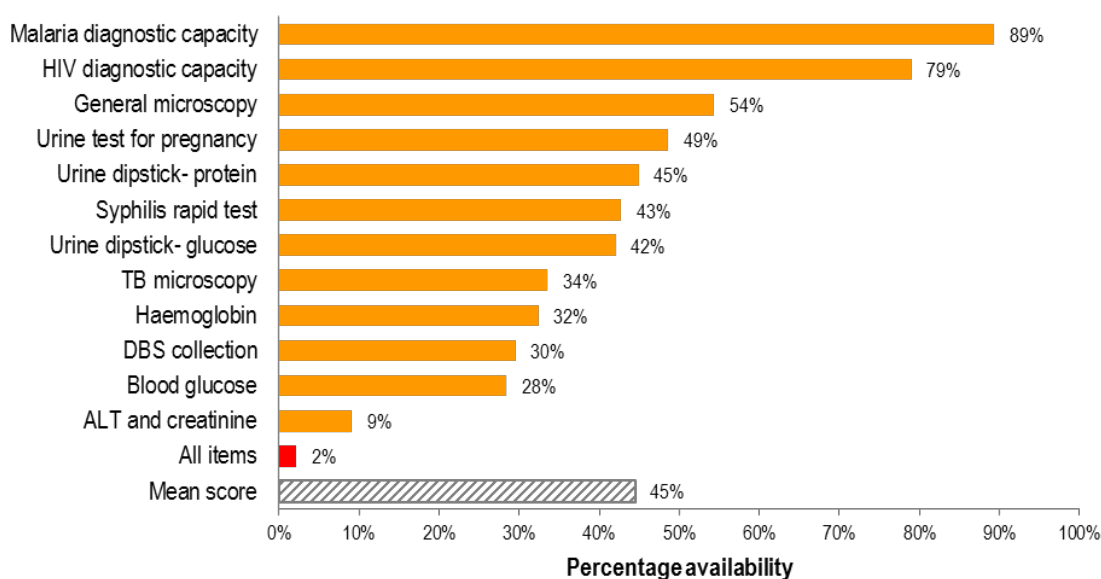


Very few facilities (5%) had all 13 items; on average facilities had nine of the 13 tracer items for an overall readiness score of 69%. All health facilities had disposable or auto disable syringes, and nearly all facilities had appropriate storage of sharps waste and latex gloves. However, less than 30% of facilities had medical masks, eye protection, and sterilization equipment.

DIAGNOSTICS

For any disease to be cured, it has to be first diagnosed correctly, which makes laboratories and diagnostics important elements of the health care delivery system. Laboratory diagnostic capacity was assessed based on the capacity to conduct the following 12 Level 1 diagnostic tests at the facility, including availability of functioning equipment and reagents: haemoglobin, blood glucose, malaria diagnostic capacity, urine dipstick-protein, urine dipstick- glucose, HIV diagnostic capacity, DBS collection, TB microscopy, syphilis rapid test, general microscopy, urine test for pregnancy, and ALT and creatinine. Figure 4 shows the percentage of facilities that are able to conduct these tests on site.

Figure 4: Percentage of facilities that are able to conduct Level 1 diagnostic testing on site (N = 95)



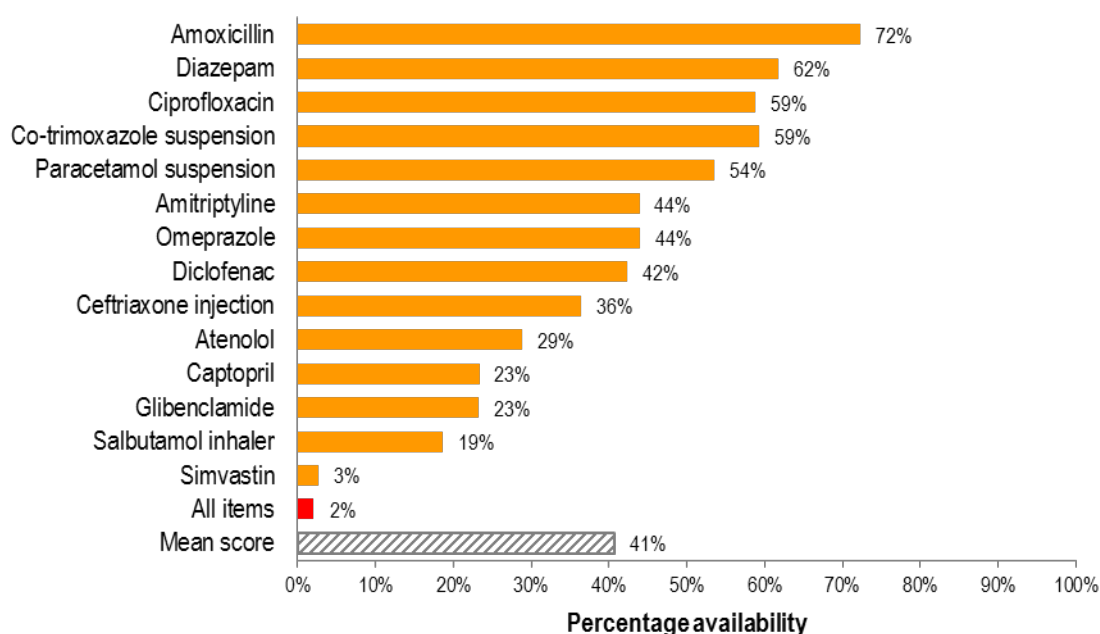
Very few facilities (2%) were able to conduct all 12 diagnostic tests on site; on average facilities were able to conduct five of the twelve tests for an overall readiness score of 45%. Malaria and HIV were the most commonly available tests: 89% of facilities were able to conduct a malaria test on site, while three quarters were able to conduct an HIV test (79%). Approximately half of facilities could conduct a general microscopy or urine pregnancy test. The remaining tests were available in fewer facilities overall (less than 45%).

ESSENTIAL MEDICINES

Access to essential medicines and supplies is fundamental to the good performance of the health care delivery system. Availability of medicines is commonly cited as the most important element of quality by health care consumers, and the absence of medicines is a key factor in the underuse of government health services.

Facilities were assessed on whether they had the following 14 essential medicines in stock on the day of the assessment: amitriptyline, amoxicillin, atenolol, captopril, ceftriaxone injection, ciprofloxacin, co-trimoxazole suspension, diazepam, diclofenac, glibenclamide, omeprazole, paracetamol suspension, salbutamol inhaler, and simvastatin. Only medicines that were observed at the facility with valid expiration date were considered. Figure 5 shows the percentage of facilities with these tracer drugs in stock.

Figure 5: Percentage of facilities that have essential medicines observed in stock and valid (N = 95)



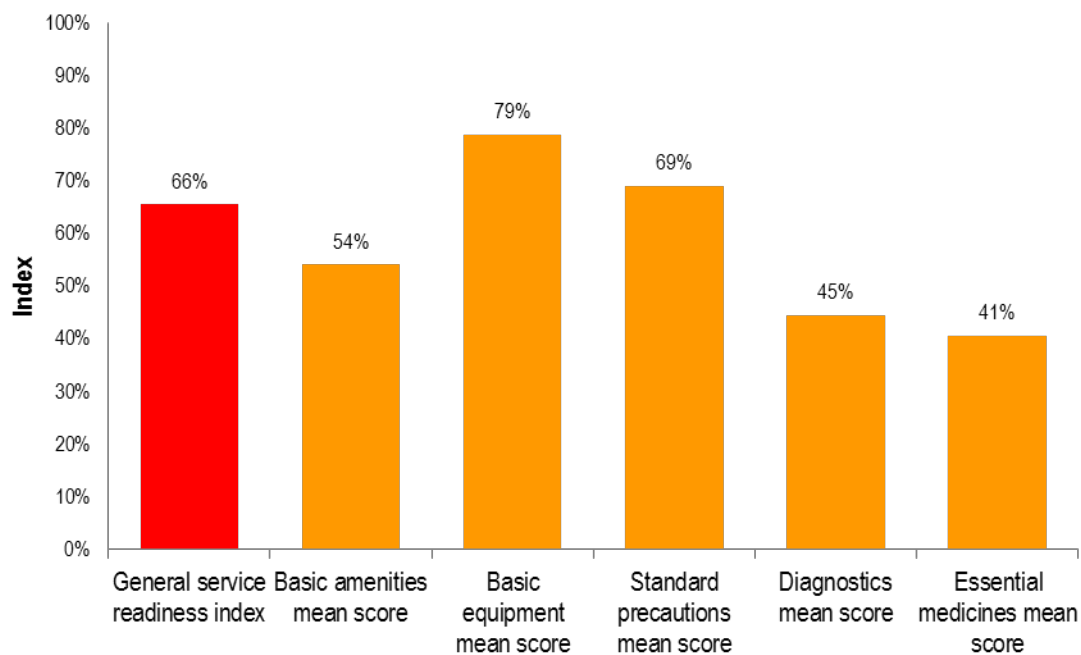
There were very few facilities that had all 14 essential medicines (2%); on average facilities had six of the fourteen medicines in stock on the day of the assessment. Antibiotics such as co-trimoxazole and amoxicillin and pain medication such as paracetamol showed higher availability compared to medicines for non-communicable diseases (NCDs) such as atenolol, captopril, glibenclamide, salbutamol, and simvastatin. All NCD medicines had availabilities below 44%.

GENERAL SERVICE READINESS

The **general service readiness index** is a composite measure designed to combine information from the five general service readiness domains: basic amenities, basic equipment, standard precautions for infection prevention, diagnostics, and essential medicines. For each area the average availability was computed using a set of standard items as seen in Figures 1 – 5.

Figure 6 shows the general service readiness index and domain scores. The general service readiness index score is 66 out of 100. Across the five domains, the basic equipment score is the highest, and the essential medicines score is the lowest.

Figure 6: Overall general service readiness index and domain scores (N = 95)



Service specific availability and readiness

1. MNCAH

1.1 FAMILY PLANNING

Table 2 shows the percentage of facilities providing family planning services in 2012. Male condoms and progestin-only injectable contraceptives such as Depo-Provera were the most common modern methods of family planning, provided in 78% of facilities. Overall, eight in ten facilities provide family planning services.

Table 2: Percentage of facilities providing family planning services (N = 95)

| | 2012 |
|--|------------|
| Offers family planning services | 81% |
| Male condoms | 78% |
| Progestin-only injectable contraceptives | 78% |
| Emergency contraceptive pills | 66% |
| Combined oral contraceptives | 62% |
| Progestin-only contraceptives | 58% |
| Implant | 26% |
| IUCD | 22% |
| Female sterilization | 16% |
| Male sterilization | 14% |
| Combined injectable contraceptives | 14% |
| Female condoms | 6% |

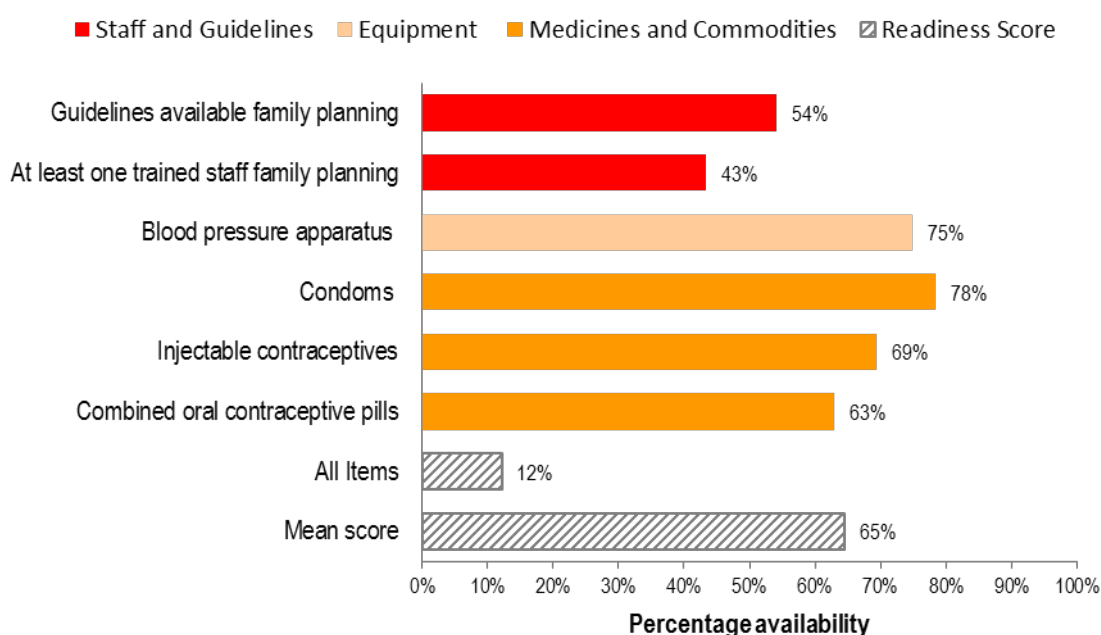
Readiness to provide family planning services was assessed based on the presence of the six tracer items shown in Table 3.

Table 3: SARA tracer items for family planning services

| Domains | Tracer items (% of facilities with item) |
|------------------------------------|---|
| Staff & training | <ul style="list-style-type: none">• Guidelines for family planning• Staff trained in family planning in the past two years |
| Equipment | <ul style="list-style-type: none">• Blood pressure apparatus |
| Medicines & commodities | <ul style="list-style-type: none">• Combined oral contraceptive pills• Injectable contraceptives• Male condoms |

Figure 7 shows the percentage availability of these tracer items in facilities that provide family planning services. One in ten facilities had all six tracer items; the overall readiness score was 65%, indicating that on average facilities had four of the six items. Eight in ten facilities had male condoms available on the day of the assessment, indicating that two in ten providing family planning services did not have condoms in stock. Only half of facilities had family planning guidelines, and four in ten had staff training in family planning in the past two years.

Figure 7: Percentage of facilities that have tracer items for family planning services among facilities that provide this service (N= 78)



1.2 ANTENATAL CARE

Table 4 shows the percentage of facilities providing antenatal care services in 2012. Three in four facilities provided antenatal care services which included IPT, and iron and folic acid supplementation.

Table 4: Percentage of facilities providing antenatal care services (N = 95 facilities)

| | 2012 |
|---|------------|
| Offers antenatal care | 75% |
| IPT | 75% |
| Iron supplementation | 74% |
| Folic acid supplementation | 74% |
| Tetanus toxoid vaccination | 69% |
| Monitoring for hypertensive disorder of pregnancy | 67% |

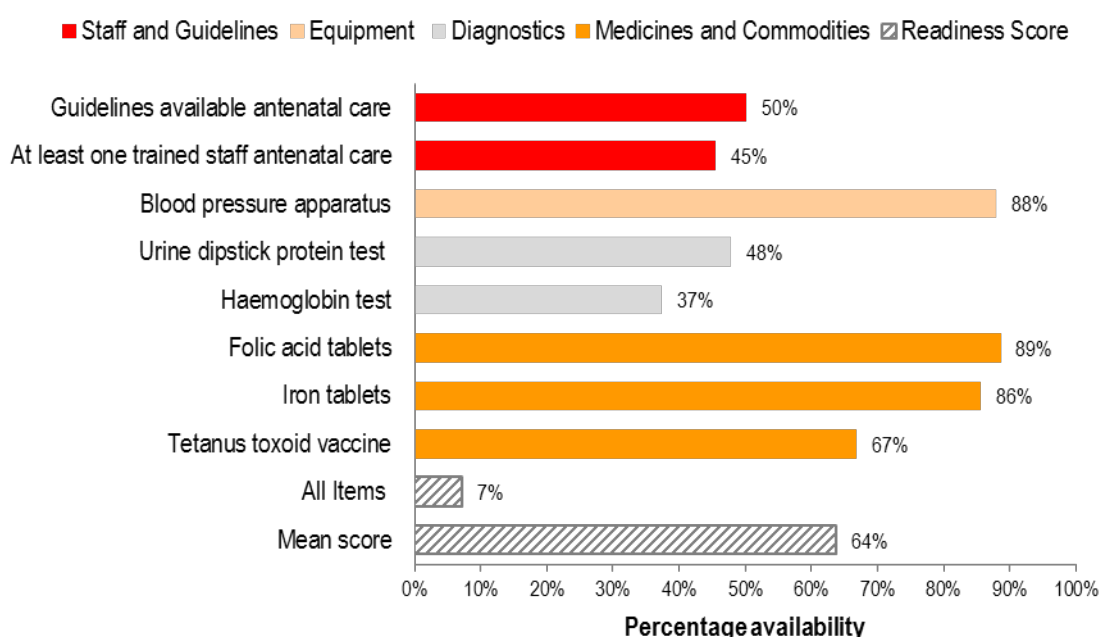
Readiness to provide antenatal care services was assessed based on the presence of the eight tracer items in Table 5.

Table 5: SARA tracer items for antenatal care services

| Domains | Tracer items (% of facilities with item) |
|------------------------------------|--|
| Staff & training | <ul style="list-style-type: none"> Guidelines for ANC Staff trained in ANC in the past two years |
| Equipment | <ul style="list-style-type: none"> Blood pressure apparatus |
| Diagnostics | <ul style="list-style-type: none"> Haemoglobin test Urine dipstick protein |
| Medicines & commodities | <ul style="list-style-type: none"> Iron tablets Folic acid tablets Tetanus toxoid vaccine |

Figure 8 shows the percentage availability of these tracer items in facilities that offer antenatal care services in 2012. Few facilities had all eight items; the overall readiness score was 64%, indicating that on average facilities had five of the eight tracer items. Diagnostic capacity was low: only half of facilities were able to conduct urine protein testing on site, and four in ten were able to conduct a haemoglobin test. Availability of guidelines and staff trained in ANC in the past two years was also quite low, at 50% and 45% respectively. Nine in ten facilities had folic acid and iron tablets in stock; however, three in ten facilities providing ANC did not have tetanus toxoid available on the day of the assessment.

Figure 8: Percentage of facilities that have tracer items for antenatal care services among facilities that provide this service (N = 81)



1.3 BASIC OBSTETRIC CARE

Table 6 shows the percentage of facilities providing basic obstetric care services. Approximately half of health facilities provide delivery services. Four of the seven BEmOC interventions are offered in approximately half of facilities, including parenteral administration of oxytocic drugs, neonatal resuscitation, parenteral administration of antibiotics, and manual removal of retained products. Fewer facilities provided assisted vaginal delivery (24%). Approximately two in ten facilities provide all seven BEmOC interventions.

Table 6: Percentage of facilities providing basic obstetric care (N = 95)

| | 2012 |
|---|------------|
| Offers delivery services | 53% |
| Parenteral administration of oxytocic drugs | 53% |
| Neonatal resuscitation | 51% |
| Parenteral administration of antibiotics | 49% |
| Manual removal of retained products | 47% |
| Manual removal of placenta | 44% |
| Parenteral administration of anti-convulsants | 34% |
| Assisted vaginal delivery | 24% |
| Basic emergency obstetric care | 17% |

Readiness to provide basic obstetric care was assessed based on the presence of the 19 tracer items in Table 7.

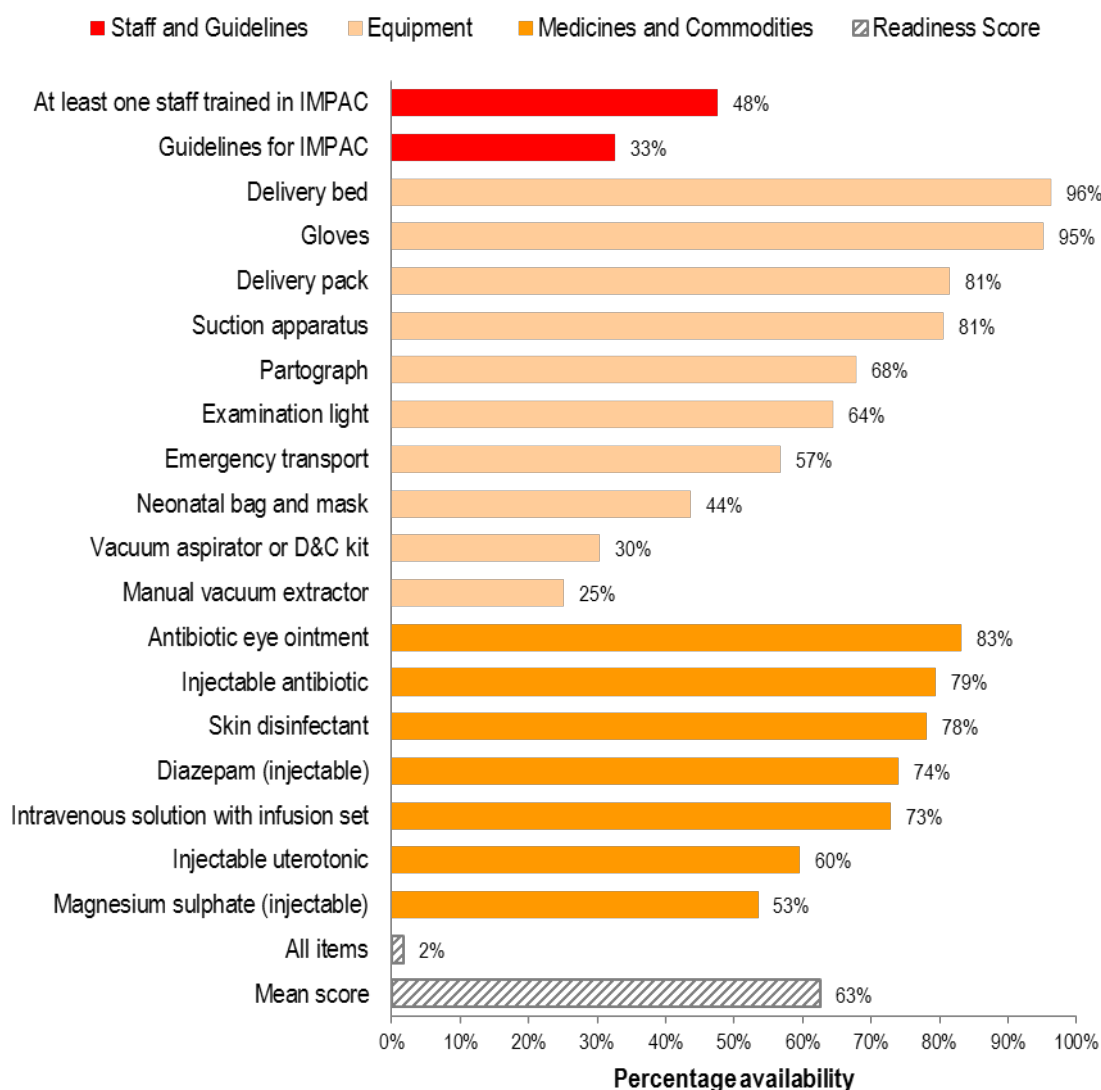
Table 7: SARA tracer items for basic obstetric care

| Domains | Tracer items (% of facilities with item) |
|------------------------------------|---|
| Staff & training | <ul style="list-style-type: none"> • Guidelines for Integrated management of pregnancy and childbirth (IMPAC) • Staff trained in IMPAC in the past two years |
| Equipment | <ul style="list-style-type: none"> • Emergency transport • Examination light • Delivery pack • Suction apparatus (mucus extractor) • Manual vacuum extractor • Vacuum aspirator or D&C kit • Neonatal bag and mask • Delivery bed • Partograph • Gloves |
| Medicines & commodities | <ul style="list-style-type: none"> • Antibiotic eye ointment • Injectable uterotonic • Injectable antibiotic • Magnesium sulphate (injectable) • Diazepam (injectable) • Skin disinfectant • Intravenous solution with infusion set |

Figure 9 shows the percentage availability of these tracer items in facilities that offer delivery care in 2012. Almost no facilities had all 19 tracer items. On average, facilities had 12 of the 19 items in 2012, for an overall readiness score of 63 out of 100. Almost all facilities providing delivery care had basic equipment items such as a delivery bed and gloves; eight in ten facilities had a delivery pack and suction apparatus. However, only four in ten facilities had a neonatal bag and mask for neonatal resuscitation. Few facilities had a manual vacuum extractor or vacuum aspirator / D&C kit, but this is likely because many facilities are not expected to provide assisted deliveries or manual vacuum aspiration.

Eight in ten facilities had antibiotic eye ointment, injectable antibiotic, and skin disinfectant in stock on the day of the assessment. However, only six in ten facilities providing delivery care had injectable uterotonic such as oxytocin in stock on the day of the assessment, and only half had injectable magnesium sulphate. A lack of these medicines could be a contributing factor in maternal deaths due to postpartum hemorrhage and hypertensive disorders of pregnancies, which are among the top causes of maternal deaths in Uganda.

Figure 9: Percentage of facilities that have tracer items for basic obstetric care among facilities that provide delivery services (N = 67)



1.4 COMPREHENSIVE OBSTETRIC CARE

Approximately six in ten hospitals provide blood transfusion and caesarean section; very few health centres provided these services, giving an overall percentage of 7% of facilities providing comprehensive obstetric care. Three in ten hospitals (or 5% of all facilities) provided all nine comprehensive emergency obstetric care interventions. Guidelines jointly issued by WHO, UNICEF, and UNFPA recommend four facilities offering basic and one facility offering comprehensive care for every 500,000 people.

Table 8: Percentage of facilities providing comprehensive obstetric services

| | Percentage of all facilities (N=95) | Percentage of hospitals (N=11) |
|--|-------------------------------------|--------------------------------|
| Offers comprehensive obstetric care | 7% | 64% |
| Caesarean section | 7% | 64% |
| Blood transfusion | 7% | 64% |
| CEmoC | 5% | 31% |

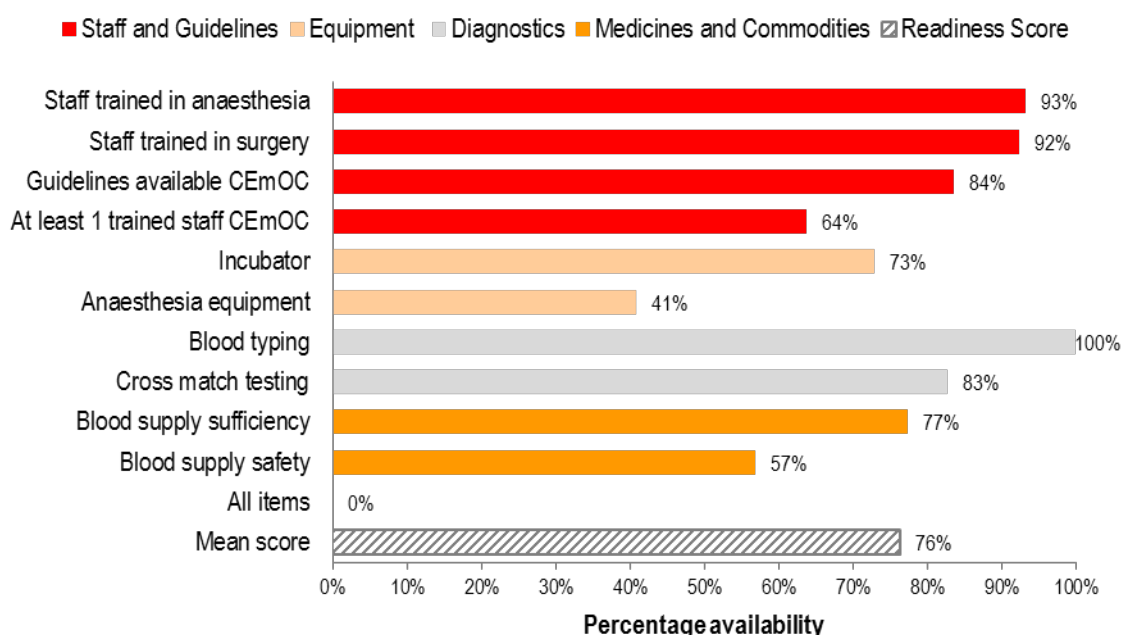
To be able to manage obstetric complications, a facility must have a surgeon and anaesthetist available or on call at all times, with the required equipment, supplies, and trained support staff to administer blood transfusions and anaesthesia. Readiness to provide comprehensive obstetric care was assessed based on the presence of the 10 tracer items in Table 9, for facilities that provide C-section.

Table 9: SARA tracer items for comprehensive obstetric care.

| Domains | Tracer items (% of facilities with item) |
|------------------------------------|--|
| Staff & training | <ul style="list-style-type: none"> Guidelines for CEmOC Staff trained in CEmOC in the past two years Staff trained in surgery Staff trained in anaesthesia |
| Equipment | <ul style="list-style-type: none"> Anaesthesia equipment Incubator |
| Diagnostics | <ul style="list-style-type: none"> Blood typing Cross match testing |
| Medicines & commodities | <ul style="list-style-type: none"> Blood supply sufficiency (no interruption in blood availability in past 3 months) Blood supply safety (blood obtained from national/regional blood bank OR all blood screened for transfusion transmissible diseases) |

Figure 10 shows the percentage availability of these tracer items for facilities that provide C-sections (primarily hospitals and HC IVs). Due to the small sample size (N=13), the results are considered indicative. Less than half of facilities providing C-section had all the equipment required for anaesthesia⁸, while only seven in ten had an incubator. Given that hypothermia was the leading probable cause of perinatal deaths in 2009 - 2011 (39%), such gaps in equipment items could be an important issue to address to reduce neonatal mortality.

Figure 10: Percentage of facilities that have tracer items for comprehensive obstetric care services among hospitals and health facilities that provide caesarean section (N = 13)



⁸ Anaesthesia machine, tubings and connectors for endotracheal tube, adult and paediatric resuscitator bag and mask, adult and paediatric intubation set (oropharyngeal airway, endotracheal tubes, laryngoscope, Magill's forceps, stylet).

1.5 CHILD IMMUNIZATION

Table 10 shows the percentage of facilities providing child immunization services. Overall, eight in ten facilities provided child immunization; almost all facilities that offered child immunization services provided routine immunization for all four antigens: measles, DTP-HiB-HepB, polio, and BCG.

Table 10: Percentage of facilities providing child immunization (N = 95)

| | 2012 |
|---|------------|
| Offers child immunization services | 80% |
| Routine measles immunization | 80% |
| Routine DTP-Hib+HepB immunization | 80% |
| Routine polio immunization | 80% |
| Routine BCG immunization | 79% |

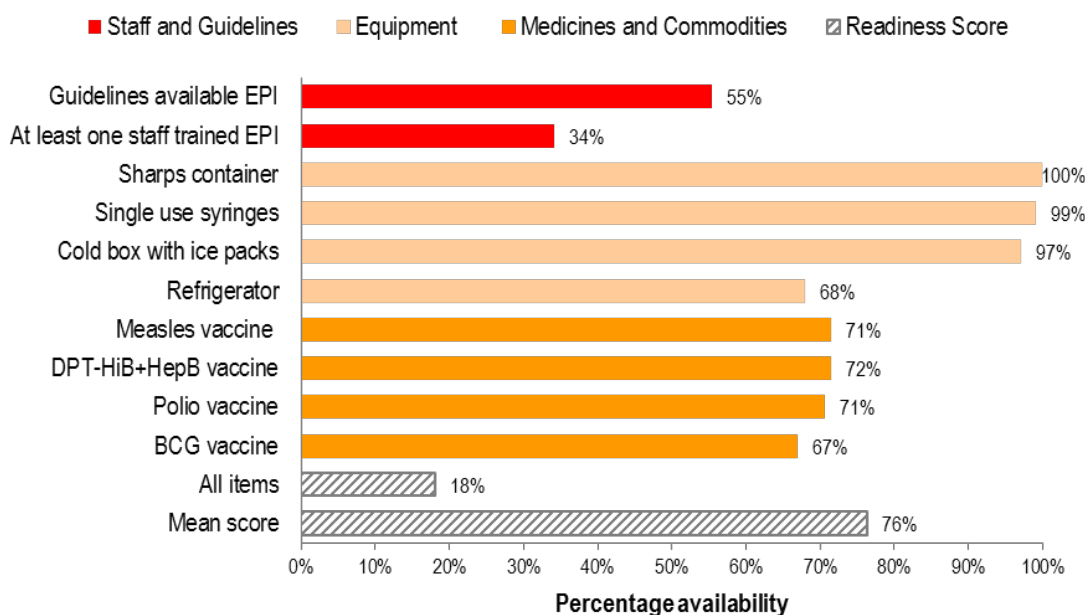
While the percentage of facilities offering routine immunization services is high overall, this does not preclude the possibility of vaccine stock-outs and other essential commodities and equipment needed to provide the service. Readiness to provide child immunization services was assessed based on the presence of the 10 tracer items shown in Table 11.

Table 11: SARA tracer items for child immunization services

| Domains | Tracer items (% of facilities with item) |
|------------------------------------|--|
| Staff & training | <ul style="list-style-type: none"> • Guidelines for EPI • Staff trained in EPI in the past two years |
| Equipment | <ul style="list-style-type: none"> • Cold box or vaccine carrier with ice packs • Refrigerator • Sharps container • Single use syringes (standard disposable or auto-destruct) |
| Medicines & commodities | <ul style="list-style-type: none"> • Measles vaccine • DTP-Hib-HepB vaccine • Polio vaccine • BCG vaccine |

Figure 11 shows the percentage availability of these tracer items in facilities that offer child immunization services. Two in ten facilities had all ten items in 2012; on average, facilities had eight of the ten tracer items. Availability of equipment items for immunization was generally high overall: almost all facilities had a sharps container (100%), single-use syringes (99%) and a cold box with ice packs (96%). Availability of antigens on the day of the assessment (observed with valid expiration date) was around 70% for all antigens. Only seven in ten facilities had a functioning refrigerator for the storage of vaccines on the day of the assessment.

Figure 11: Percentage of facilities that have tracer items for child immunization services among facilities that provide this service (N = 84)



1.6 CHILD HEALTH PREVENTATIVE AND CURATIVE CARE

Table 12 shows the percentage of facilities offering key child curative care and growth monitoring services. Most facilities (91%) offered preventive and curative care for children under the age of five, and the percentage of facilities providing key child health services was generally quite high.

Table 12: Percentage of facilities providing key child curative and preventive care services (N = 95)

| | 2012 |
|---|------------|
| Offers preventive and curative care for U-5s | 91% |
| ORS and zinc supplementation to children with diarrhoea | 91% |
| Vitamin A supplementation | 81% |
| Iron supplementation | 79% |
| Diagnosis/treat malnutrition | 76% |
| Child growth monitoring | 75% |

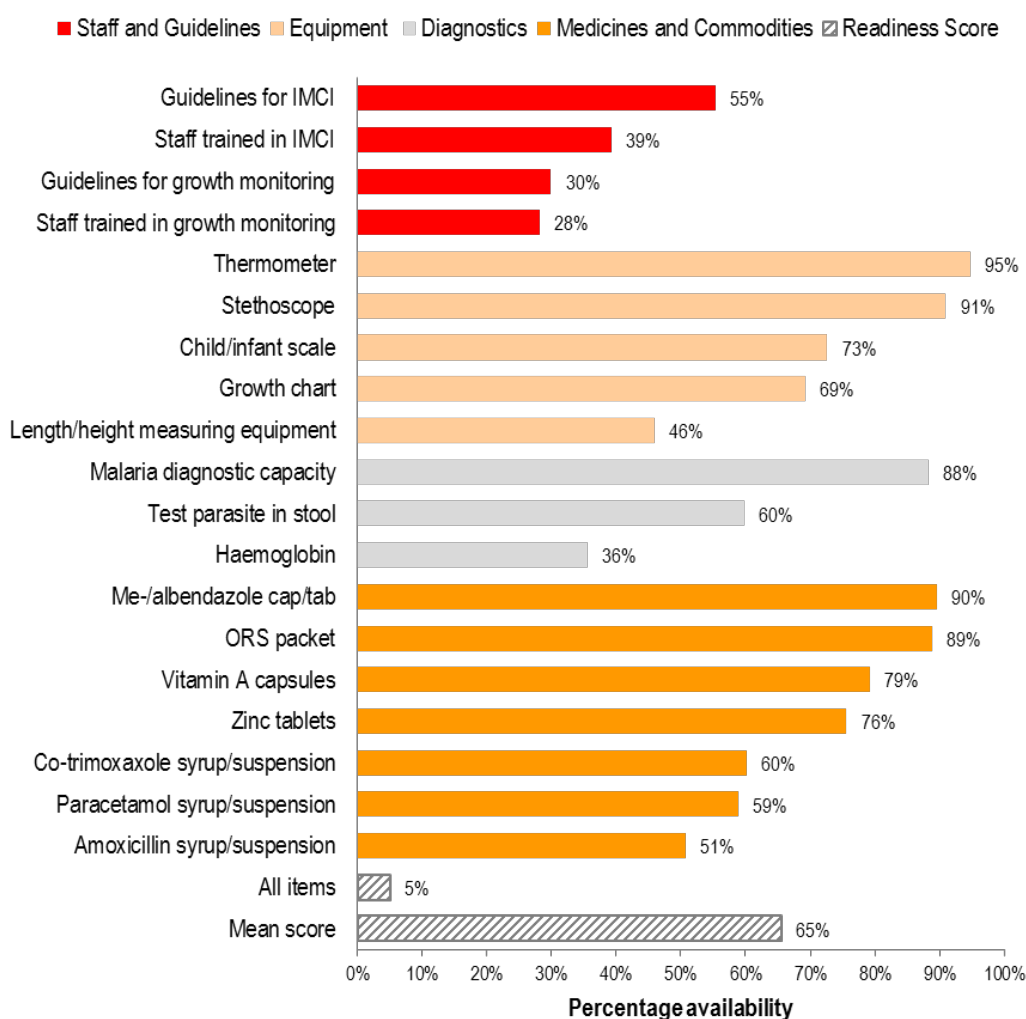
Readiness to offer child curative care and growth monitoring services was assessed based on the presence of the 18 tracer items shown in Table 13.

Table 13: SARA tracer items for child curative and preventive care services

| Domains | Tracer items (% of facilities with item) |
|------------------------------------|---|
| Staff & training | <ul style="list-style-type: none"> Guidelines for Integrated Management of Childhood Illness (IMCI) Staff trained in IMCI in the past two years Guidelines for growth monitoring Staff trained in growth monitoring in the past two years |
| Equipment | <ul style="list-style-type: none"> Child/infant scale Length/height measuring equipment Thermometer Growth chart |
| Diagnostics | <ul style="list-style-type: none"> Haemoglobin test General microscopy (for stool parasite testing) Malaria diagnostic capacity |
| Medicines & commodities | <ul style="list-style-type: none"> ORS Amoxicillin syrup/suspension Co-trimoxazole syrup/suspension Paracetamol syrup/suspension Vitamin A capsules Albendazole/mebendazole Zinc tablets |

Figure 12 shows the percentage availability of these tracer items in facilities that offer child curative and preventive care services. Almost no facilities had all 18 tracer items; on average, facilities had 12 of the 18 tracer items for an overall readiness score of 65%. Nine in ten had albendazole/ mebendazole and ORS packets in stock on the day of the assessment, and eight in ten had Vitamin A capsules and zinc tablets. However, only half of facilities had amoxicillin syrup, and only six in ten had co-trimoxazole and paracetamol suspension. Nine in ten facilities had basic equipment items such as thermometer and stethoscope, but only half had length and height measuring equipment. Presence of trained staff and guidelines was low overall. While nine in ten facilities were able to conduct a malaria test on site, only six in ten could conduct a stool test for parasites, and four in ten were able to do a haemoglobin test on site.

Figure 12: Percentage of facilities that have tracer items for child curative and preventive care services among facilities that provide these services (N = 91)



1.7 ADOLESCENT HEALTH

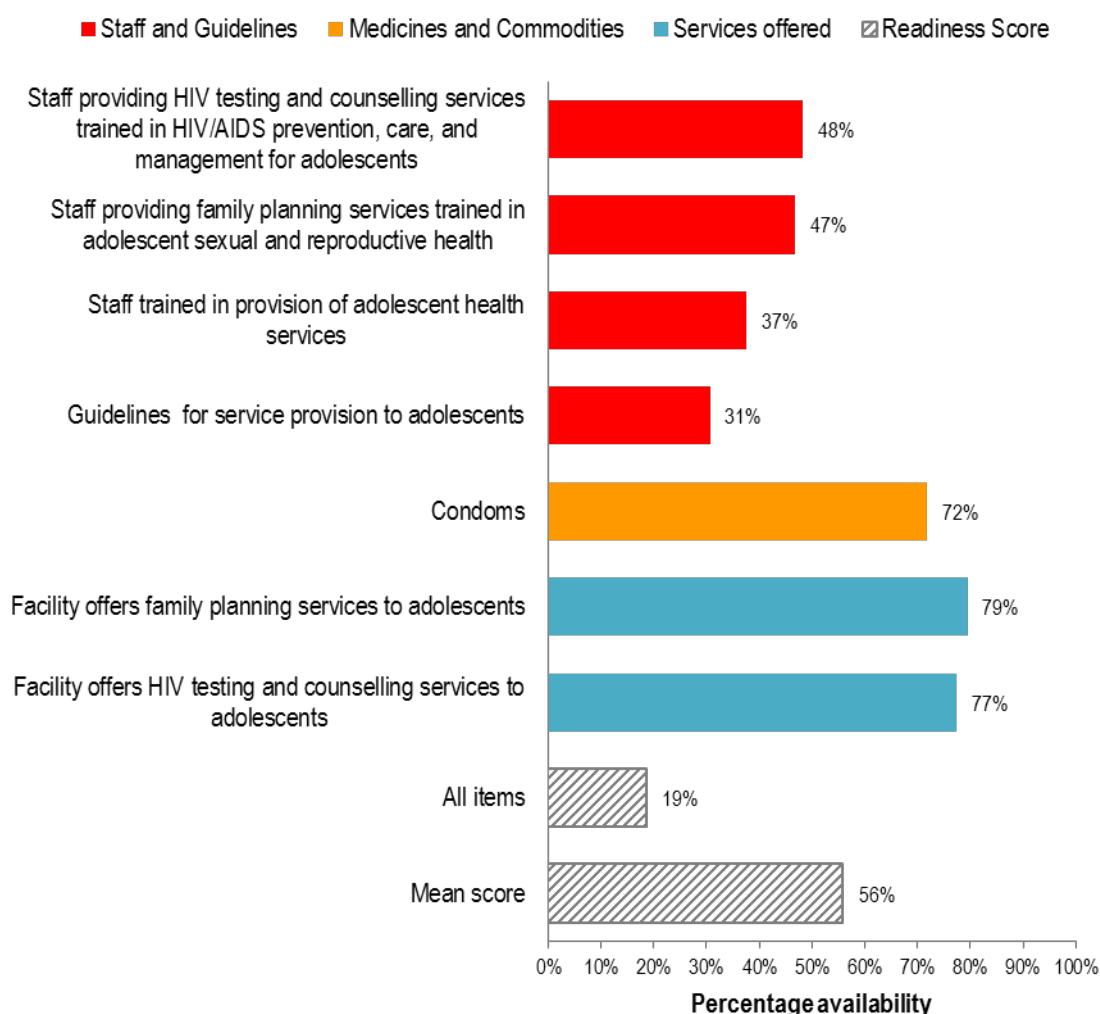
Approximately half of all facilities (47%) provide adolescent health services. Readiness to offer adolescent health services was assessed based on the presence of the 7 tracer items shown in Table 14.

Table 14: SARA tracer items for adolescent health services

| Domains | Tracer items (% of facilities with item) |
|------------------------------------|---|
| Staff & training | <ul style="list-style-type: none"> Guidelines for service provision to adolescents Staff trained in provision of adolescent health services Staff providing family planning services trained in adolescent sexual and reproductive health Staff providing HIV testing and counselling services trained in HIV/AIDS prevention, care, and management for adolescents |
| Medicines & commodities | <ul style="list-style-type: none"> Condoms |
| Adolescent health services | <ul style="list-style-type: none"> Facility offers family planning services to adolescents Facility offers HIV counselling and testing to adolescents |

Figure 13 shows the percentage availability of these tracer items in facilities that offer adolescent health services. Two in ten facilities had all seven tracer items; on average, facilities had 4 of the 7 tracer items for an overall readiness score of 56%. Of the facilities providing adolescent health services, 79% offered family planning services and 77% offered HIV counseling and testing services to adolescents. Seven in ten facilities providing adolescent health services had condoms in stock on the day of the assessment. Presence of trained staff and guidelines was quite low overall.

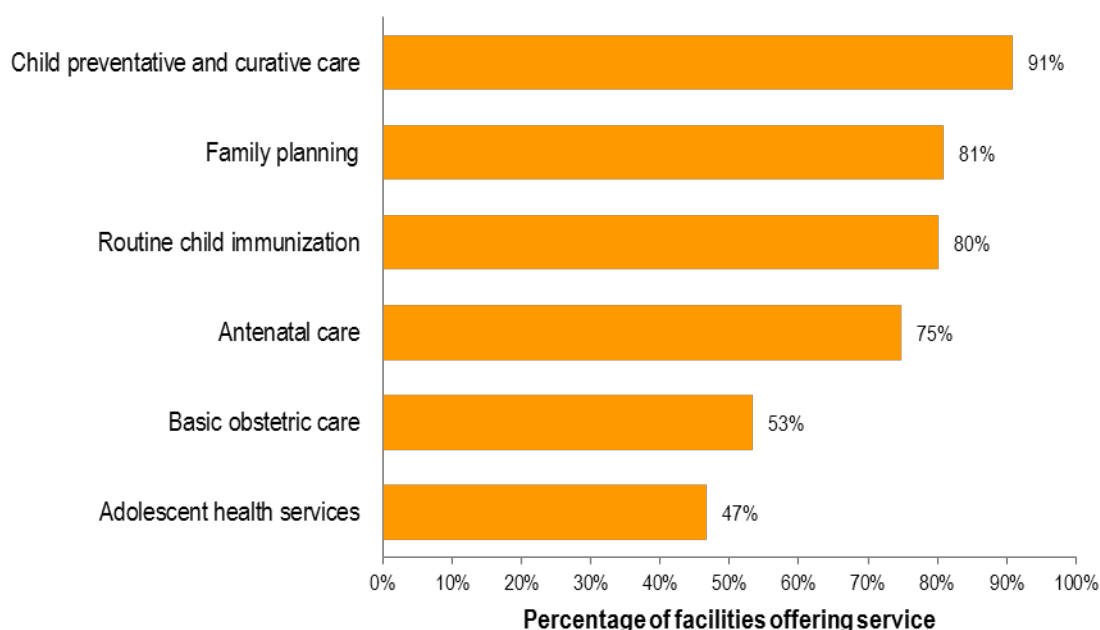
Figure 13: Percentage of facilities that have tracer items for adolescent health services among facilities that provide these services (N = 56)



1.8 MNCAH OVERVIEW

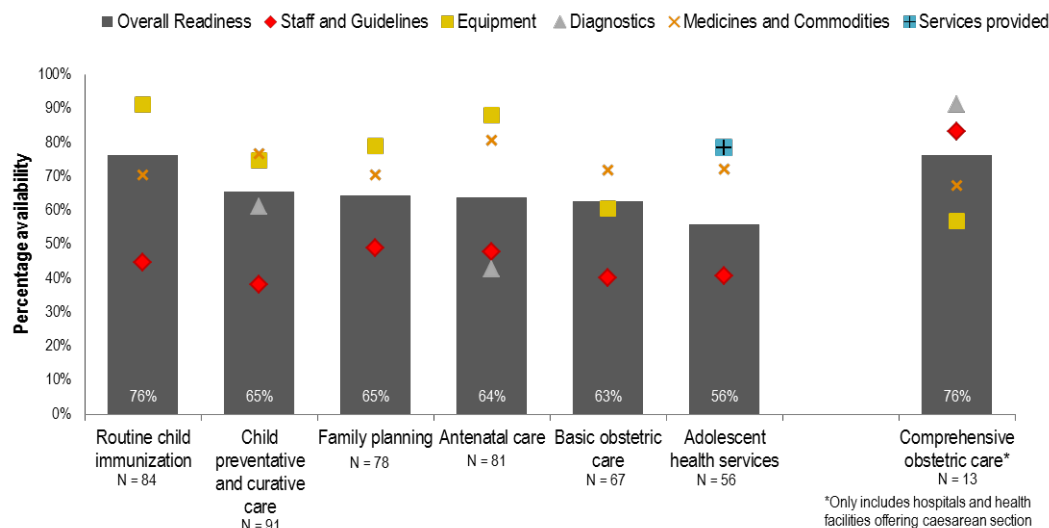
The percentage of facilities providing maternal and child health services was high for some key services, while lower for others. Nine in ten facilities provided child preventative and curative care services, and eight in ten facilities provided family planning and routine child immunization services. Three-fourths of facilities provided antenatal care services. The percentage of facilities providing basic obstetric care and adolescent health services was slightly lower at five in ten facilities. The percentage of facilities providing maternal and child health services is shown below in Figure 14.

Figure 14: Percentage of facilities offering MNCAH services (N = 95)



Child immunization and comprehensive obstetric care had high readiness scores (76%) compared to other maternal and child health services. Readiness to provide child preventative and curative care, family planning, antenatal care, and basic obstetric care was about the same (63-65%). The lowest readiness score was adolescent health services (56%). Diagnostic and staffing scores tended to be lowest, while equipment and medicines scores tended to be highest for these services. Figure 15 below shows the readiness scores and domain scores for the MNACH services.

Figure 15: MNACH readiness overview



2. COMMUNICABLE DISEASES

2.1 MALARIA

Table 15 shows the percentage of facilities providing malaria services. Almost all facilities provide malaria diagnosis and treatment services, while two-thirds of facilities provide IPT. Six in ten facilities reported verifying clinical malaria diagnosis using a blood test (RDT or blood smear); however, this does not necessarily indicate how frequently and consistently this verification is performed.

Table 15: Percentage of facilities providing malaria services (N = 95)

| | 2012 |
|--|------------|
| Offer diagnosis or treatment of malaria | 98% |
| Malaria diagnosis | 98% |
| Malaria treatment | 95% |
| IPT | 75% |
| Malaria diagnosis verification | 59% |

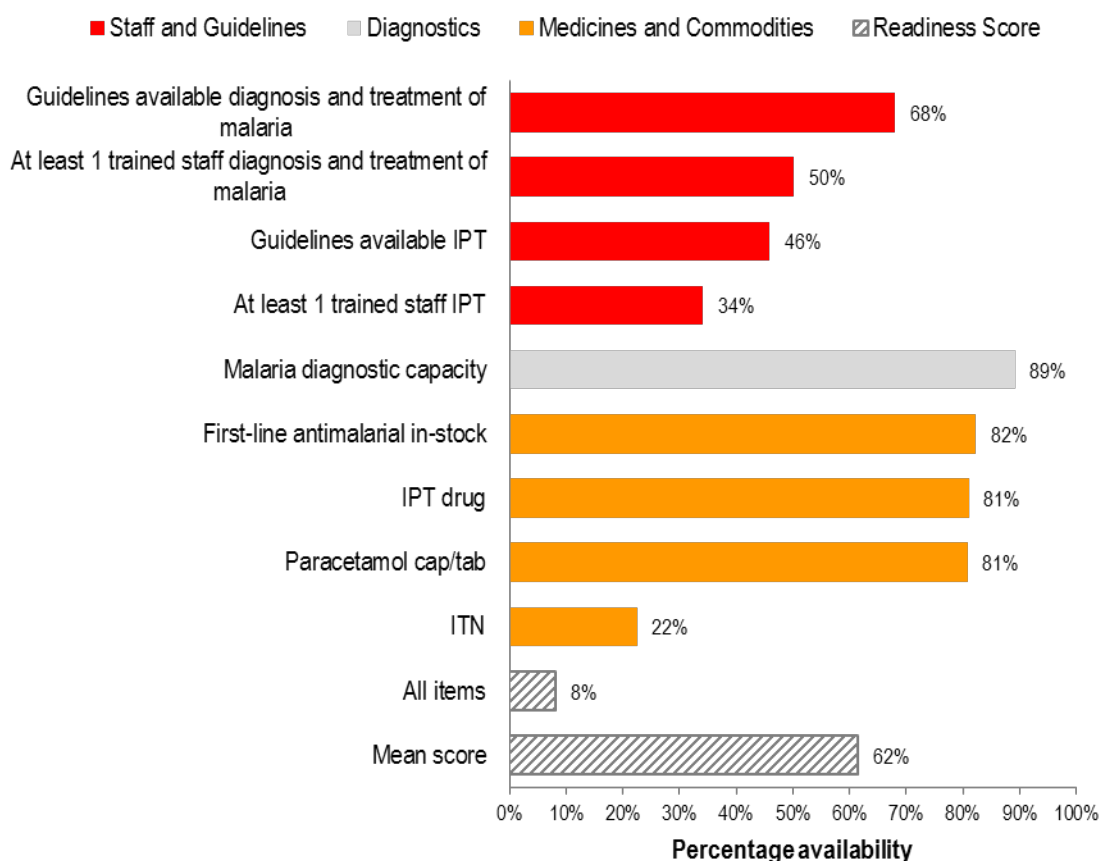
Readiness to provide malaria services was assessed based on the presence of the nine tracer items in Table 16.

Table 16: SARA tracer items for malaria

| Domains | Tracer items (% of facilities with item) |
|-------------------------|---|
| Staff & training | <ul style="list-style-type: none">• Guidelines for diagnosis and treatment of malaria• Guidelines for IPT• Staff trained in diagnosis and treatment of malaria in the past two years• Staff trained in IPT in the past two years |
| Diagnostics | <ul style="list-style-type: none">• Malaria diagnostic capacity |
| Medicines & commodities | <ul style="list-style-type: none">• First-line antimalarial (ACT)• Paracetamol cap/tab• IPT drug (SP)• ITN (or vouchers) |

Figure 16 shows the percentage availability of these tracer items in facilities that offer malaria services. Only 8% of facilities had all nine items; on average facilities had 6 of the nine tracer items. Availability of medicines was high with eight out of ten facilities having a first-line antimalarial, IPT drug, and paracetamol in stock. Trained staff and guidelines showed the lowest availability with less than half of facilities having trained staff and guidelines for IPT and less than two-thirds of facilities having trained staff and guidelines for diagnosis and treatment of malaria. ITN availability was low with only two out of ten facilities having ITN or ITN vouchers available.

Figure 16: Percentage of facilities that have tracer items for malaria services among facilities that provide these services (N = 94)



2.2 TUBERCULOSIS

Table 17 shows the percentage of facilities providing TB diagnosis and treatment services. Approximately four in ten facilities provide TB services. The percentage of facilities diagnosing TB was approximately equal to the percentage providing TB treatment, indicating that availability of TB treatment was no more widespread than diagnostic services.

Table 17: Percentage of facilities providing tuberculosis services (N = 95)

| | 2012 |
|---------------------------|------------|
| Offers TB services | 45% |
| TB treatment | 35% |
| TB diagnosis | 33% |

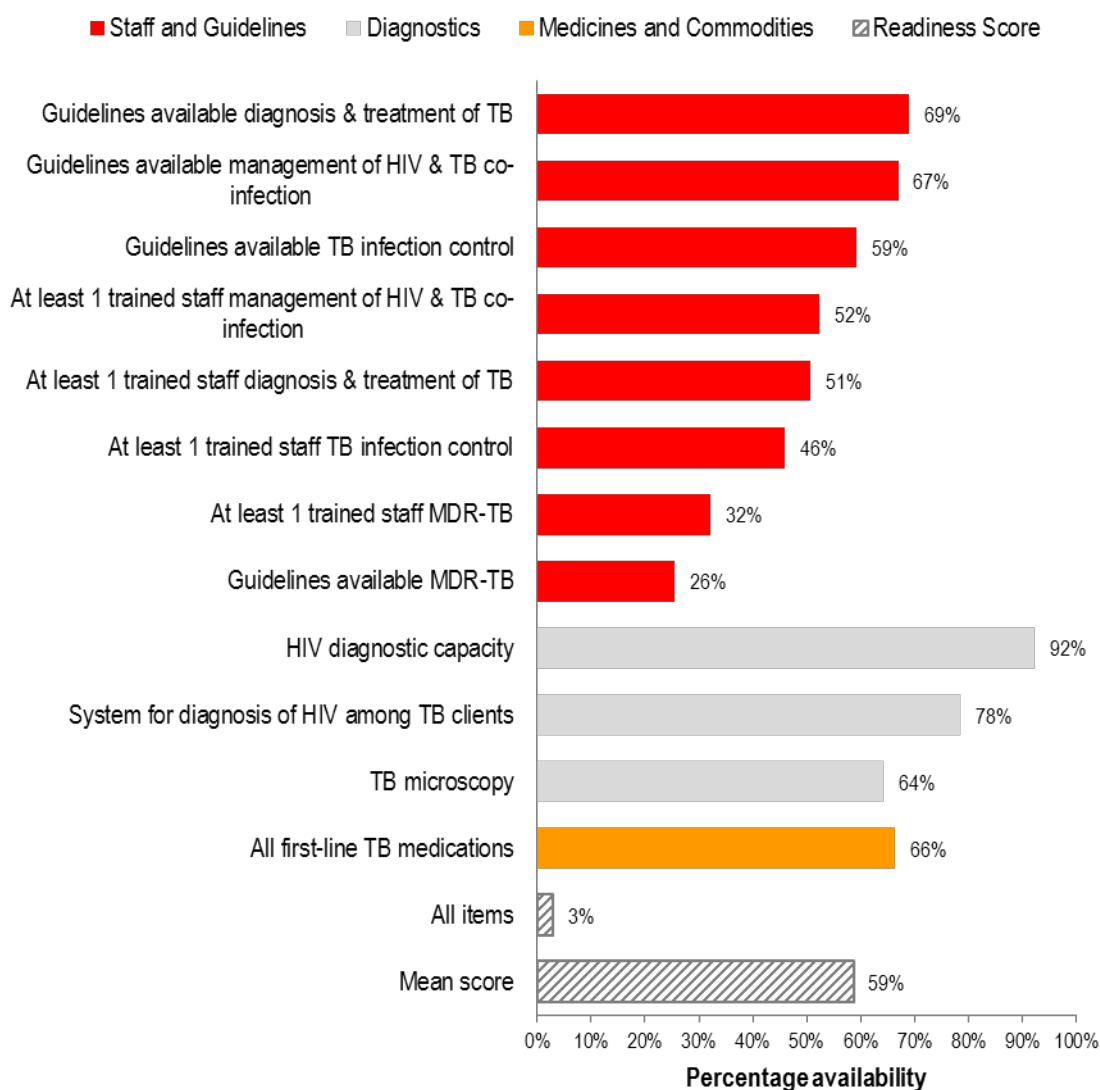
Readiness to provide TB services was assessed based on the presence of the twelve tracer items shown in Table 18.

Table 18: SARA tracer items for tuberculosis

| Domains | Tracer items (% of facilities with item) |
|-------------------------|--|
| Staff & training | <ul style="list-style-type: none"> Guidelines for diagnosis and treatment of TB Guidelines for management of HIV and TB co-infection Guidelines for MDR-TB (treatment or need for referral) Guidelines for TB infection control Staff trained in diagnosis and treatment of TB in the past two years Staff trained in management of HIV and TB co-infection in the past two years Staff trained in MDR-TB (treatment or need for referral) in the past two years Staff trained in TB infection control in the past two years |
| Diagnostics | <ul style="list-style-type: none"> TB microscopy HIV diagnostic capacity System for diagnosis of HIV among TB clients |
| Medicines & commodities | <ul style="list-style-type: none"> First-line TB medications |

Figure 17 shows the percentage availability of these tracer items in facilities that offer TB services. Three percent of facilities had all twelve items; on average, facilities had seven of the twelve tracer items. Approximately two-thirds of facilities have the capacity to diagnose TB as well as to provide first-line TB medications for treatment. Most facilities (92%) also had the capacity to offer HIV diagnostic testing. Trained staff and guideline availability varied by topic. Guidelines and trained staff were most available for diagnosis and treatment of TB (69% and 51% respectively), whereas guidelines and trained staff were least available for MDR-TB (26% and 32% respectively).

Figure 17: Percentage of facilities that have tracer items for tuberculosis services among facilities that provide these services (N = 50)



2.3 HIV COUNSELLING AND TESTING

Table 19 shows the percentage of facilities providing HIV counselling and testing services. Approximately eight in ten facilities provide HIV counselling and testing services.

Table 19: Percentage of facilities providing HIV counselling and testing services (N = 95)

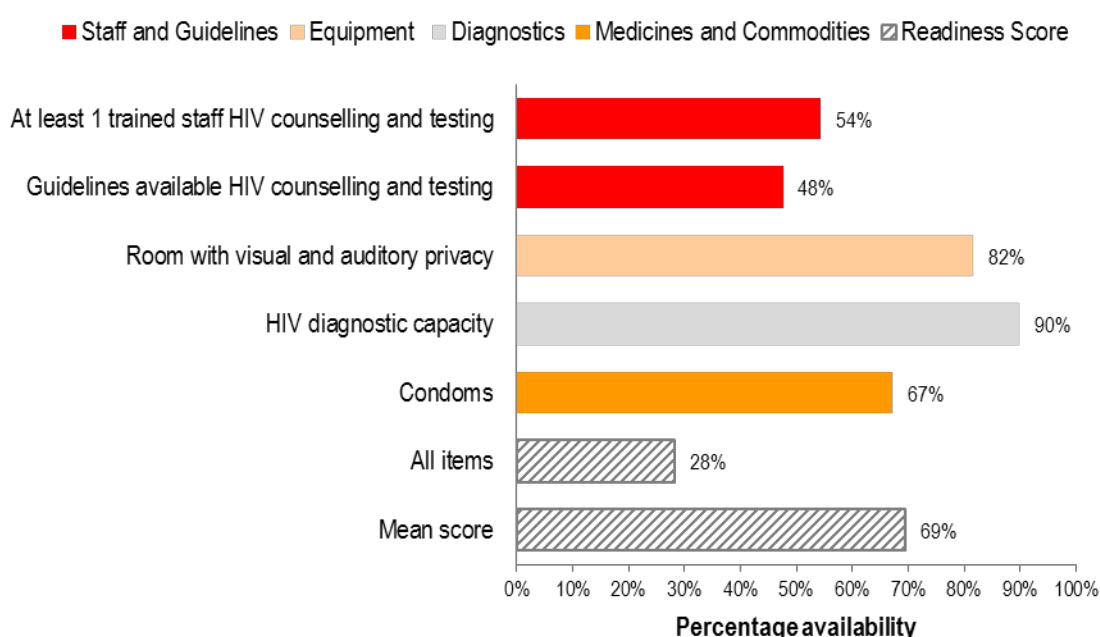
| | 2012 |
|---|------|
| Offers HIV counselling and testing services | 84% |

Readiness to provide HIV counselling and testing services was assessed based on the presence of the five tracer items shown in Table 20.

Table 20: SARA tracer items for HIV counselling and testing

| Domains | Tracer items (% of facilities with item) |
|-------------------------|--|
| Staff & training | <ul style="list-style-type: none"> Guidelines for HIV counselling and testing Staff trained in HIV counselling and testing in the past two years |
| Equipment | <ul style="list-style-type: none"> Consultation room with visual and auditory privacy |
| Diagnostics | <ul style="list-style-type: none"> HIV diagnostic capacity |
| Medicines & commodities | <ul style="list-style-type: none"> Male condoms |

Figure 18 shows the percentage availability of these tracer items in facilities that provide HIV counselling and testing services. Twenty-eight percent of facilities had all five items; on average, facilities had three of the five tracer items. HIV diagnostic capacity was high with nine out of ten facilities having the capacity to diagnose HIV. Approximately two-thirds of facilities had condoms available of the day of the assessment. Trained staff and guidelines had the lowest availability (54% and 48% respectively).

Figure 18: Percentage of facilities that have tracer items for HIV counselling and testing services among facilities that provide these services (N = 78)

2.4 HIV CARE AND SUPPORT

HIV/AIDS care and support services include treatment of opportunistic infections and palliative care.

Table 21 shows the percentage of facilities that provide a number of HIV/AIDS care and support services. Overall, approximately two-thirds of facilities offer HIV care and support services.

Table 21: Percentage of facilities providing HIV care and support services (N = 95)

| | 2012 |
|---|------------|
| Offers HIV care and support services | 67% |
| Preventative treatment for opportunistic infections | 63% |
| Family planning counselling | 60% |
| Treatment of opportunistic infections | 58% |
| Provide/prescribe micronutrient supplementation | 57% |
| Provide condoms | 52% |
| Nutritional rehabilitation services | 50% |
| Care for paediatric HIV/AIDS patients | 40% |
| Provision of palliative care | 29% |
| Provide/prescribe fortified protein supplementation | 25% |
| Provide/prescribe preventative treatment for TB | 23% |
| IV treatment of fungal infections | 14% |
| Treatment for Kaposi's sarcoma | 8% |

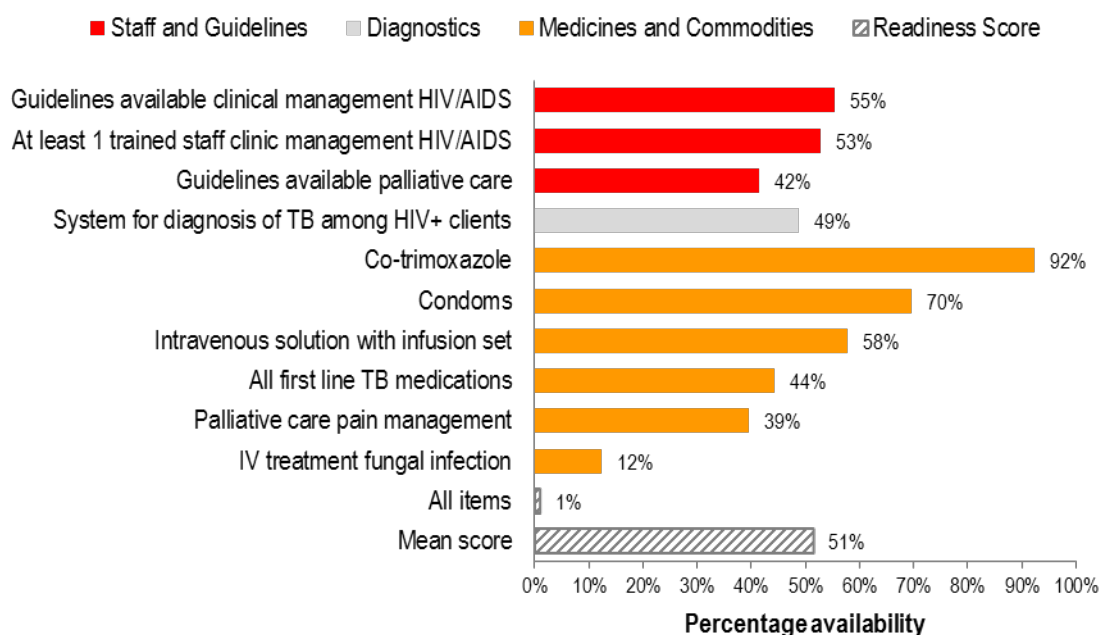
Readiness to provide HIV/AIDS care and support services was assessed based on the presence of the ten tracer items shown in Table 22.

Table 22: SARA tracer items for HIV care and support

| Domains | Tracer items (% of facilities with item) |
|-------------------------|--|
| Staff & training | <ul style="list-style-type: none"> • Guidelines for clinical management of HIV/AIDS • Guidelines for palliative care • Staff trained in clinical management of HIV/AIDS in the past two years |
| Diagnostics | <ul style="list-style-type: none"> • System for diagnosis of TB among HIV-positive clients |
| Medicines & commodities | <ul style="list-style-type: none"> • Intravenous solution with infusion set • IV treatment for fungal infections • Co-trimoxazole • First-line TB treatment medications • Palliative care pain management • Male condoms |

Figure 19 shows the percentage availability of these tracer items in facilities that provide HIV/AIDS care and support services. Almost no facilities had all ten items; on average, facilities had five of the ten tracer items. The medicines varied greatly in availability with co-trimoxazole having the highest availability (92%) and IV treatment for fungal infection having the lowest availability (12%). Approximately half of facilities had a system for diagnosis of TB among HIV+ clients. Staff trained and guidelines remained low with approximately half of facilities having the appropriate trained staff and guidelines for HIV care and support services.

Figure 19: Percentage of facilities that have tracer items for HIV care and support services among facilities that provide these services (N = 70)



2.5 ANTIRETROVIRAL THERAPY

Table 23 shows the percentage of facilities providing ART services. Approximately two facilities in ten prescribe ARVs, and a similar number provide ART treatment follow-up services.

Table 23: Percentage of facilities providing ART services (N = 95)

| | 2012 |
|---|------|
| Offers ARV prescription or ARV treatment follow-up services | 25% |
| ART prescription | 19% |
| Provide treatment follow-up services for persons on ART | 19% |

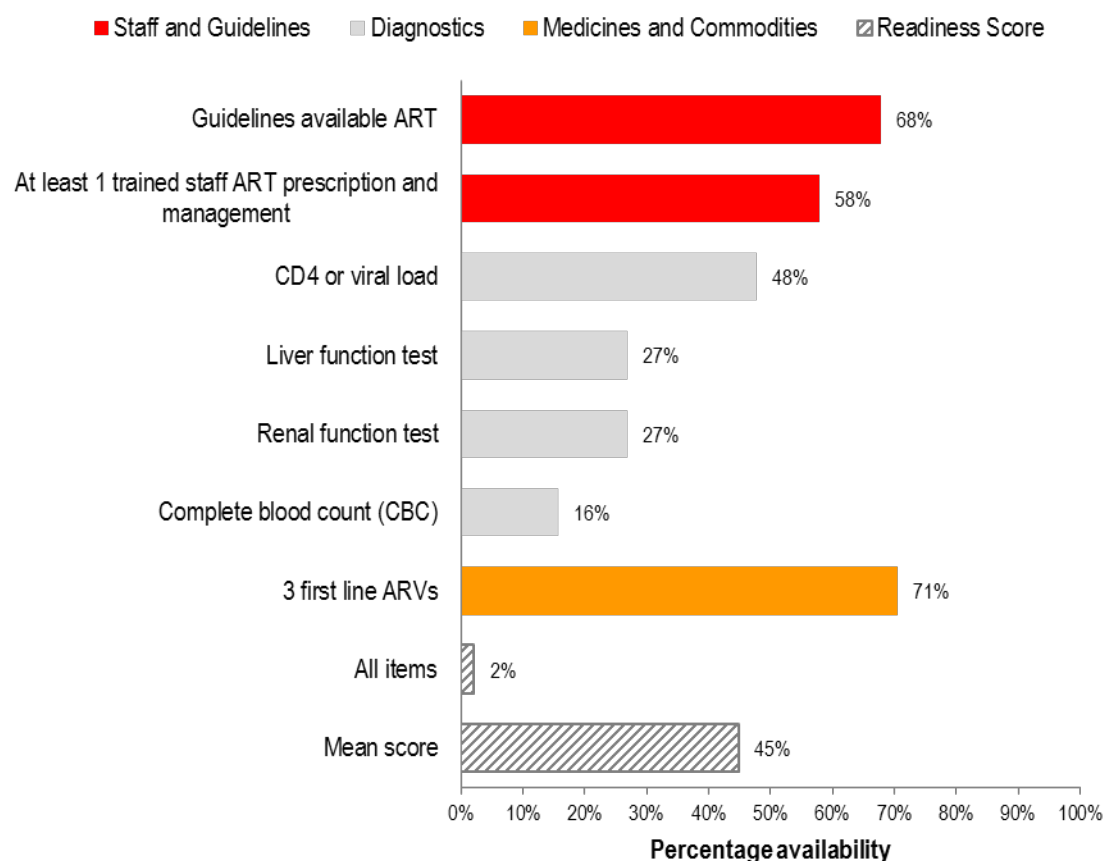
Readiness to provide ART services was assessed based on the presence of the seven tracer items in Table 24.

Table 24: SARA tracer items for ART

| Domains | Tracer items (% of facilities with item) |
|-------------------------|---|
| Staff & training | <ul style="list-style-type: none"> Guidelines for ART Staff trained in ART in the past two years |
| Diagnostics | <ul style="list-style-type: none"> Complete blood count (off or on site) CD4 or viral load (off or on site) Renal function test (off or on site) Liver function test (off or on site) |
| Medicines & commodities | <ul style="list-style-type: none"> Three first-line antiretrovirals |

Figure 20 shows the percentage availability of these tracer items at facilities that offer ART services. Only 2% of facilities had all seven items; on average, facilities had three of the seven tracer items. Seven out of ten facilities had three first line ARVs available. However, availability of diagnostics for ART remained low with less than half of facilities having each of the four diagnostic tests (CD4 or viral load 48%, liver function and renal function tests 27%, and CBC 16%).

Figure 20: Percentage of facilities that have tracer items for ART services among facilities that provide these services (N = 34)



2.6 PREVENTION OF MOTHER-TO-CHILD TRANSMISSION

Mother-to-child transmission of HIV can occur during pregnancy, during delivery through infected birth canal, or after birth from breastfeeding. Table 25 shows the percentage of facilities providing a number of PMTCT services. On average, four to five facilities in ten offer PMTCT services.

Table 25: Percentage of facilities providing PMTCT services (N = 95)

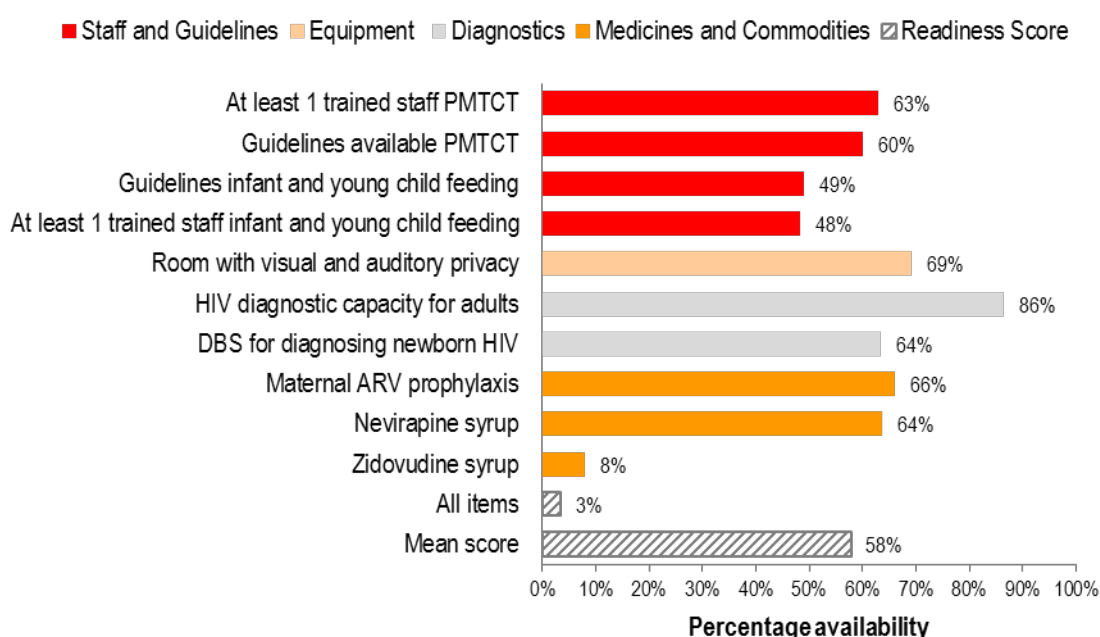
| | 2012 |
|--|------------|
| Offers services for PMTCT | 45% |
| HIV counselling & testing to HIV+ pregnant women | 43% |
| ARV prophylaxis to HIV+ women | 40% |
| Family planning counselling to HIV+ women | 39% |
| Infant & young child feeding counselling | 37% |
| Nutritional counselling for HIV+ women & their infants | 37% |
| ARV prophylaxis to newborns born to HIV+ pregnant women | 34% |
| HIV counselling & testing to infants born to HIV+ pregnant women | 34% |

Readiness to provide PMTCT services was assessed based on the presence of the ten tracer items shown in Table 26.

Table 26: SARA tracer items for PMTCT

| Domains | Tracer items (% of facilities with item) |
|-------------------------|--|
| Staff & training | <ul style="list-style-type: none"> Guidelines for PMTCT Guidelines for infant and young child feeding counselling Staff trained in PMTCT in the past two years Staff trained in infant and young child feeding in the past two years |
| Equipment | <ul style="list-style-type: none"> Consultation room with visual and auditory privacy |
| Diagnostics | <ul style="list-style-type: none"> HIV diagnostic capacity for adults Dried blood spot filter paper for HIV diagnosis in newborns |
| Medicines & commodities | <ul style="list-style-type: none"> Zidovudine syrup Nevirapine syrup Maternal ARV prophylaxis |

Figure 21 shows the percentage availability of these tracer items in facilities that offer PMTCT services. Only 3% of facilities had all ten items; on average, facilities had six of the ten tracer items. Medicine availability varied with approximately six out of ten facilities having maternal ARV prophylaxis and nevirapine syrup, but only one out of ten facilities having zidovudine syrup. Most facilities (86%) had the capacity to diagnose HIV in adults on site, while fewer facilities (64%) had the capacity to use DBS for diagnosing newborn HIV. Trained staff and guidelines for PMTCT had higher availability (63% and 60% respectively) than trained staff and guidelines for infant and young child feeding (48% and 49% respectively).

Figure 21: Percentage of facilities that have tracer items for PMTCT services among facilities that provide these services (N = 57)

2.7 SEXUALLY TRANSMITTED INFECTIONS

Table 27 shows the percentage of facilities providing STI diagnosis and treatment services. Almost all facilities (96%) provided STI services.

Table 27: Percentage of facilities providing STI services (N = 95)

| | 2012 |
|------------------------------|------|
| Offers services for STIs | 96% |
| Prescribe treatment for STIs | 93% |
| Diagnosis of STIs | 91% |

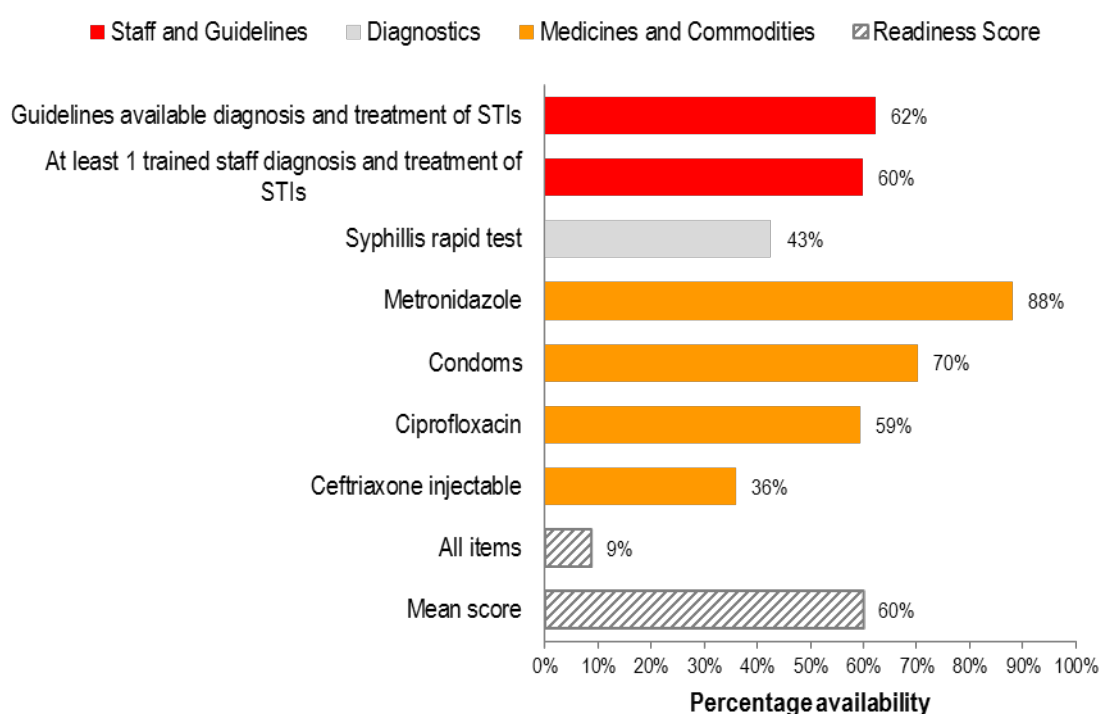
Readiness to provide STI services was assessed based on the presence of the seven tracer items shown in Table 28.

Table 28: SARA tracer items for STI

| Domains | Tracer items (% of facilities with item) |
|-------------------------|--|
| Staff & training | <ul style="list-style-type: none"> Guidelines for diagnosis and treatment of STIs Staff trained in diagnosis and treatment of STIs in the past two years |
| Diagnostics | <ul style="list-style-type: none"> Syphilis rapid test |
| Medicines & commodities | <ul style="list-style-type: none"> Male condoms Metronidazole cap/tab Ciprofloxacin cap/tab Ceftriaxone injectable |

Figure 22 shows the percentage availability of these tracer items in facilities that provide STI services. Only 9% of facilities had all seven items; on average, facilities had 4 of the 7 tracer items. Medicines including metronidazole and male condoms were the most widely available items (88% and 70% respectively). The syphilis rapid test and ceftriaxone injectable were the least available items (43% and 36% respectively). Approximately six in ten facilities had trained staff and guidelines for diagnosis and treatment of STIs.

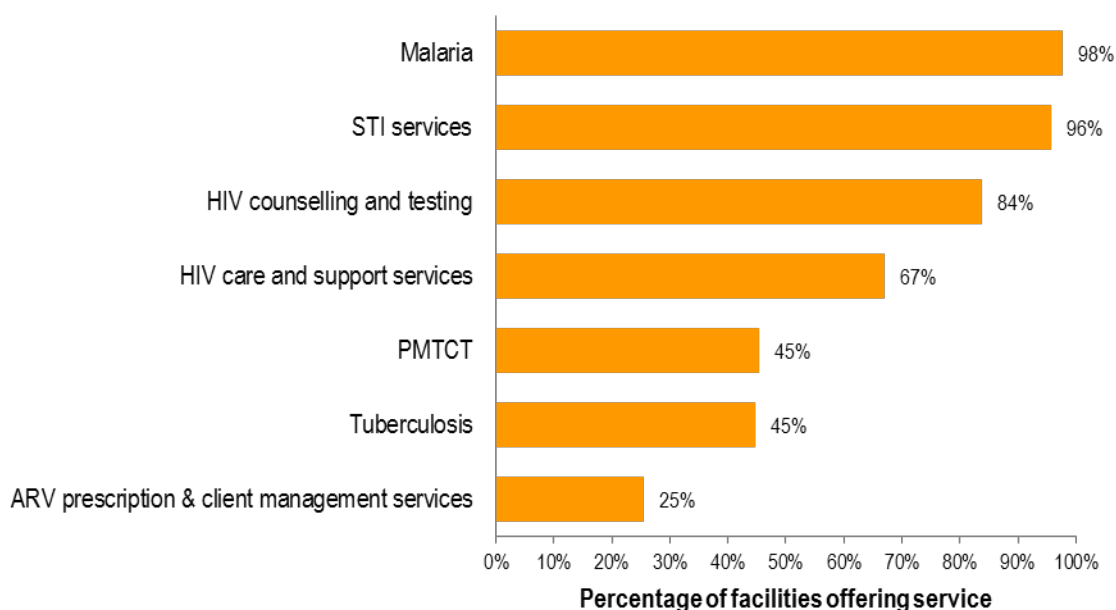
Figure 22: Percentage of facilities that have tracer items for STI services among facilities that provide these services (N = 93)



2.8 COMMUNICABLE DISEASE OVERVIEW

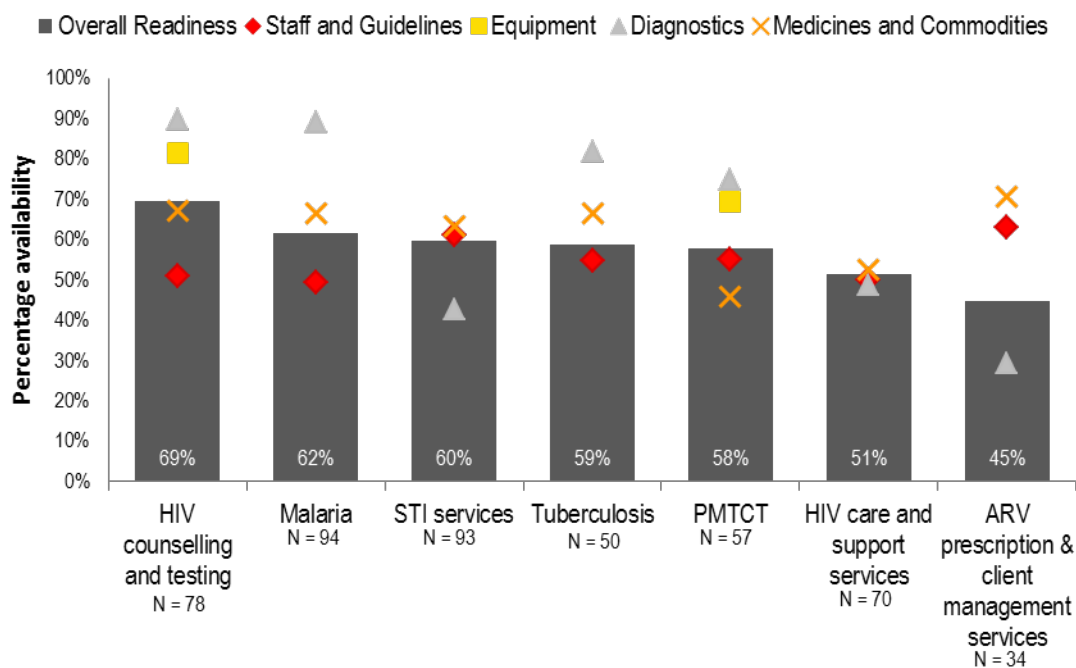
The percentage of facilities providing diagnosis and treatment for communicable diseases varied considerably. While almost all facilities provided malaria and STI diagnosis and treatment services, only 25% of facilities provided ART. HIV counselling and testing services were offered in eight in ten health facilities. HIV care and support services were offered in 67% of facilities. PMTCT and TB services were offered in 45% of facilities. The percentage of facilities providing diagnosis and treatment for communicable diseases is shown below in Figure 23.

Figure 23: Percentage of facilities offering communicable disease services (N = 95)



Communicable diseases services showed fairly similar readiness scores. HIV counselling and testing showed the highest readiness score (69%), while ARV prescription and client management services showed the lowest readiness score (45%). Overall, scores for training and guidelines tended to be low, while scores for diagnostics and equipment tended to be higher across services. Figure 24 below shows the readiness scores and domain scores for the communicable disease services.

Figure 24: Communicable disease readiness overview



3. NON COMMUNICABLE DISEASES

3.1 DIABETES

Table 29 shows the percentage of facilities providing diabetes diagnosis and/or management services. Very few facilities (27%) provided diabetes diagnosis and/or management services.

Table 29: Percentage of facilities providing diabetes services (N = 95)

| | 2012 |
|--------------------------------------|------|
| Diabetes diagnosis and/or management | 27% |

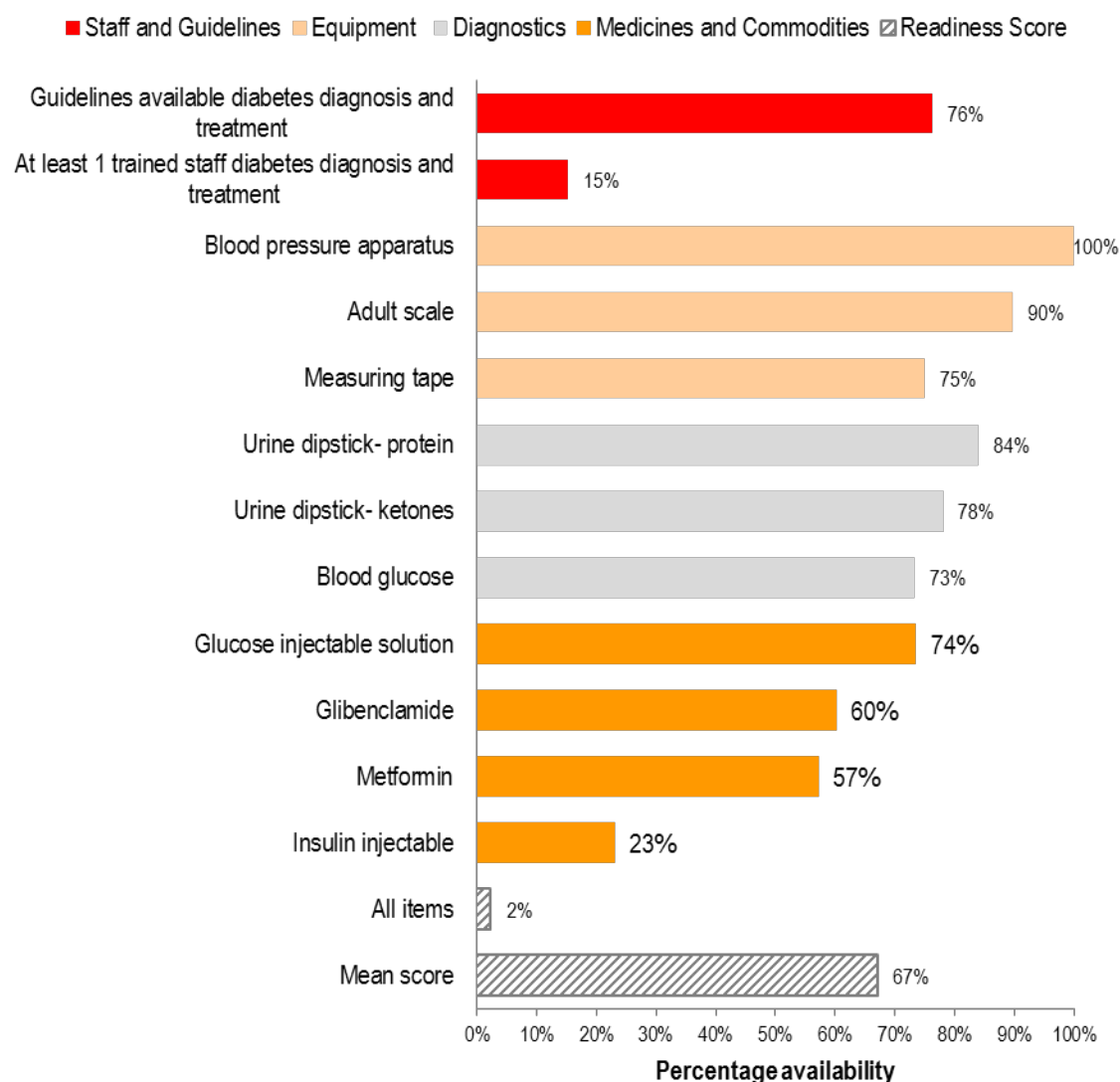
Readiness to provide diabetes diagnosis and/or management services was assessed based on the presence of the twelve tracer items shown in Table 30.

Table 30: SARA tracer items for diabetes

| Domains | Tracer items (% of facilities with item) |
|-------------------------|---|
| Staff & training | <ul style="list-style-type: none">• Guidelines for diagnosis and treatment of diabetes• Staff trained in diagnosis and treatment of diabetes in the past two years |
| Equipment | <ul style="list-style-type: none">• Blood pressure apparatus• Adult scale• Measuring tape (height board/stadiometre) |
| Diagnostics | <ul style="list-style-type: none">• Blood glucose test• Urine dipstick – protein• Urine dipstick – ketones |
| Medicines & commodities | <ul style="list-style-type: none">• Metformin cap/tab• Glibenclamide cap/tab• Insulin injectable• Glucose injectable solution |

Figure 25 shows the percentage availability of these tracer items in facilities that provide diabetes diagnosis and/or management services. Only 2% of facilities had all twelve items; on average, facilities had 8 of the 12 tracer items. Equipment including blood pressure apparatus and adult scale were the most widely available items (100% and 90% respectively). The insulin injectable and staff trained in diabetes diagnosis and treatment were the least available items (23% and 15% respectively).

Figure 25: Percentage of facilities that have tracer items for diabetes services among facilities that provide these services (N = 36)



3.2 CARDIOVASCULAR DISEASE

Table 31 shows the percentage of facilities providing cardiovascular disease diagnosis and/or management services. Half of facilities provided cardiovascular disease diagnosis and/or management services.

Table 31: Percentage of facilities providing cardiovascular disease services (N = 95)

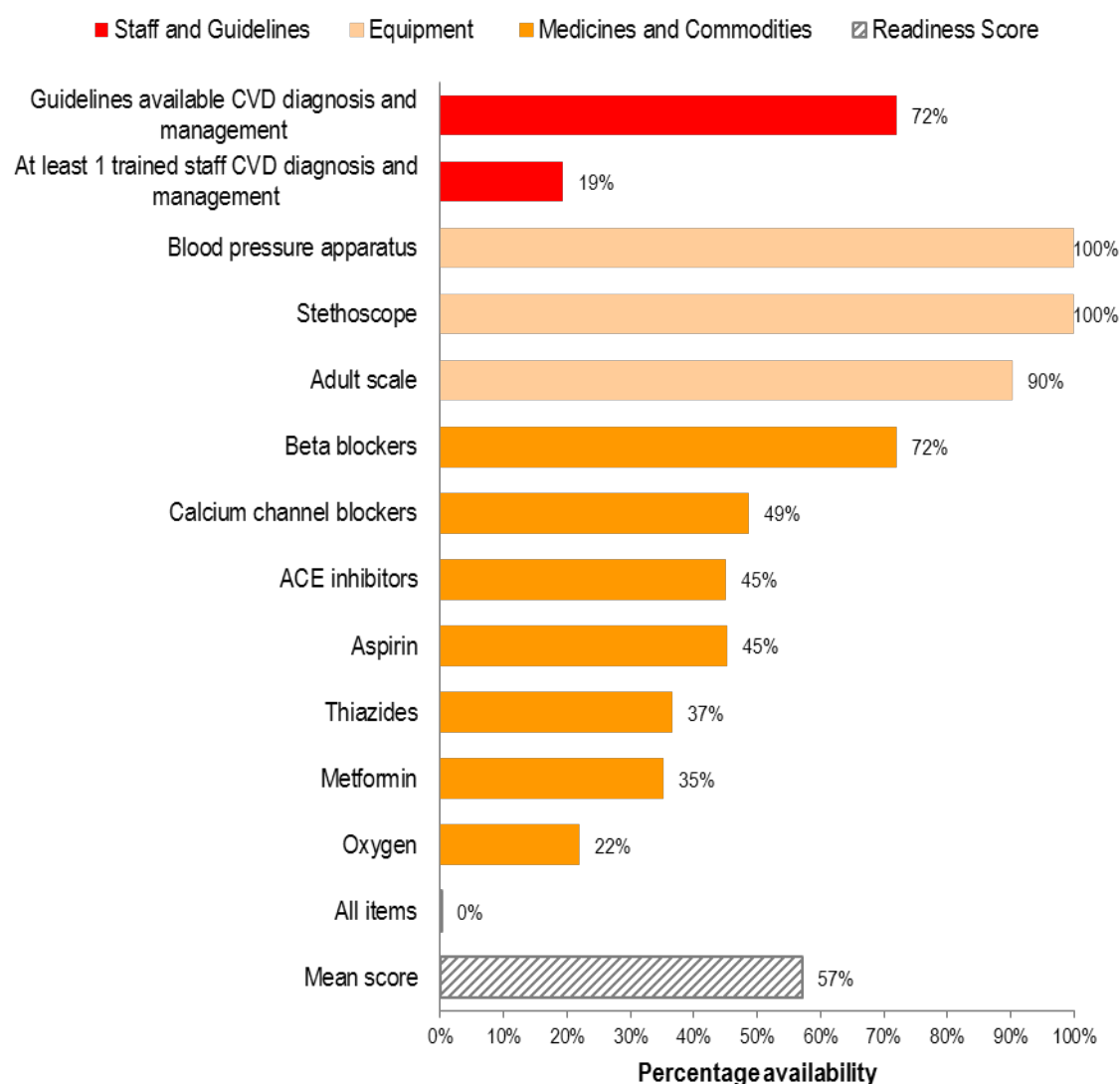
| | 2012 |
|---|------|
| Offers cardiovascular disease diagnosis and/or management | 50% |

Readiness to provide cardiovascular disease diagnosis and/or management services was assessed based on the presence of the twelve tracer items shown in Table 32.

Table 32: SARA tracer items for cardiovascular disease

| Domains | Tracer items (% of facilities with item) |
|-------------------------|--|
| Staff & training | <ul style="list-style-type: none"> Guidelines for diagnosis and treatment of chronic cardiovascular conditions Staff trained in diagnosis and treatment of chronic cardiovascular conditions in the past two years |
| Equipment | <ul style="list-style-type: none"> Stethoscope Blood pressure apparatus Adult scale |
| Medicines & commodities | <ul style="list-style-type: none"> ACE inhibitors Thiazides Beta blockers Calcium channel blockers Aspirin cap/tab Metformin cap/tab Oxygen cylinders/concentrators |

Figure 26 shows the percentage availability of these tracer items in facilities that provide cardiovascular disease diagnosis and/or management services. No facilities had all twelve items; on average, facilities had 7 of the 12 tracer items. Equipment including blood pressure apparatus, stethoscope, and adult scale were the most widely available items (100%, 100%, and 90% respectively). Oxygen and staff trained in cardiovascular disease diagnosis and treatment were the least available items (22% and 19% respectively).

Figure 26: Percentage of facilities that have tracer items for cardiovascular disease services among facilities that provide these services (N = 54)

3.3 CHRONIC RESPIRATORY DISEASE

Table 33 shows the percentage of facilities providing chronic respiratory disease diagnosis and/or management services. 62% of facilities provided cardiovascular disease diagnosis and/or management services.

Table 33: Percentage of facilities providing chronic respiratory disease services (N = 95)

| | 2012 |
|--|------|
| Offers chronic respiratory disease diagnosis and/or management | 62% |

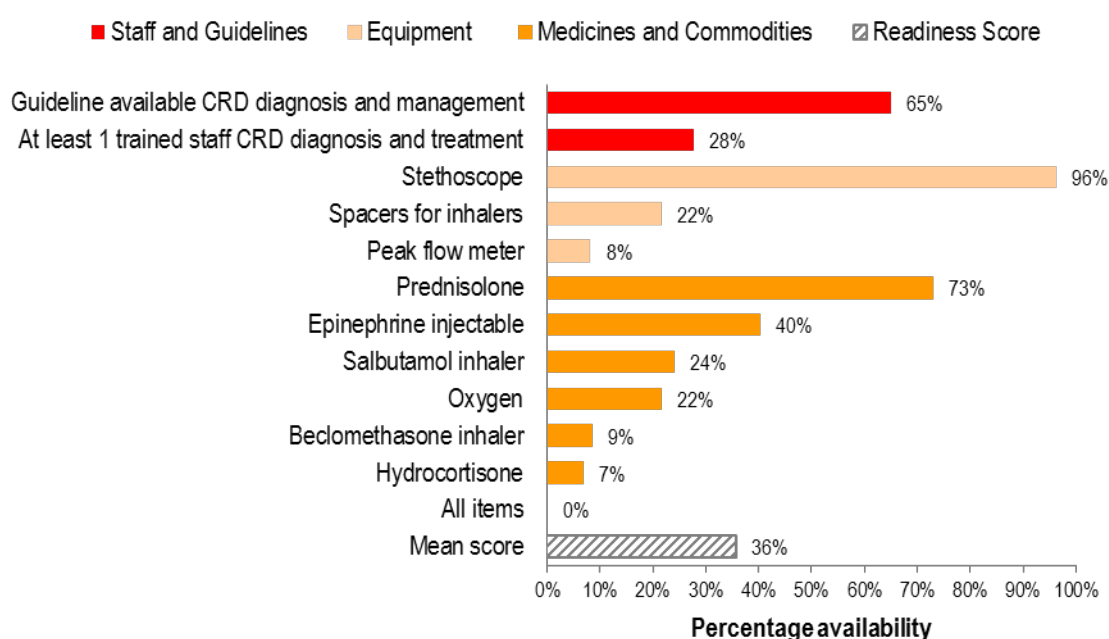
Readiness to provide chronic respiratory disease diagnosis and/or management services was assessed based on the presence of the eleven tracer items shown in Table 34.

Table 34: SARA tracer items for chronic respiratory disease

| Domains | Tracer items (% of facilities with item) |
|-------------------------|--|
| Staff & training | <ul style="list-style-type: none"> Guidelines for diagnosis and management of CRD Staff trained in diagnosis and management of CRD in the past two years |
| Equipment | <ul style="list-style-type: none"> Stethoscope Peak flow meter Spacers for inhalers |
| Medicines & commodities | <ul style="list-style-type: none"> Salbutamol inhaler Beclomethasone inhaler Prednisolone cap/tab Hydrocortisone cap/tab Epinephrine injectable Oxygen cylinders/concentrators |

Figure 27 shows the percentage availability of these tracer items in facilities that provide chronic respiratory disease diagnosis and/or management services. No facilities had all eleven items; on average, facilities had 4 of the 11 tracer items. Equipment including stethoscope was the most widely available items (96%). Medicine and commodities including oxygen and hydrocortisone (9% and 7%) respectively and equipment items including peak flow meters (8%) were the least available items.

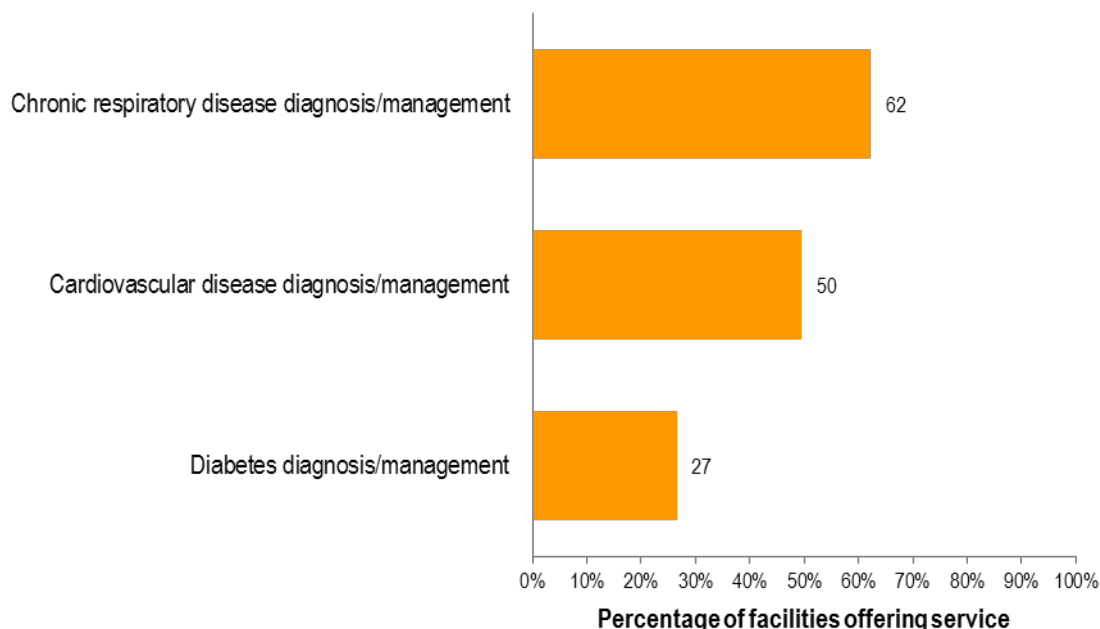
Figure 27: Percentage of facilities that have tracer items for chronic respiratory disease services among facilities that provide these services (N = 63)



3.4 NON COMMUNICABLE DISEASE OVERVIEW

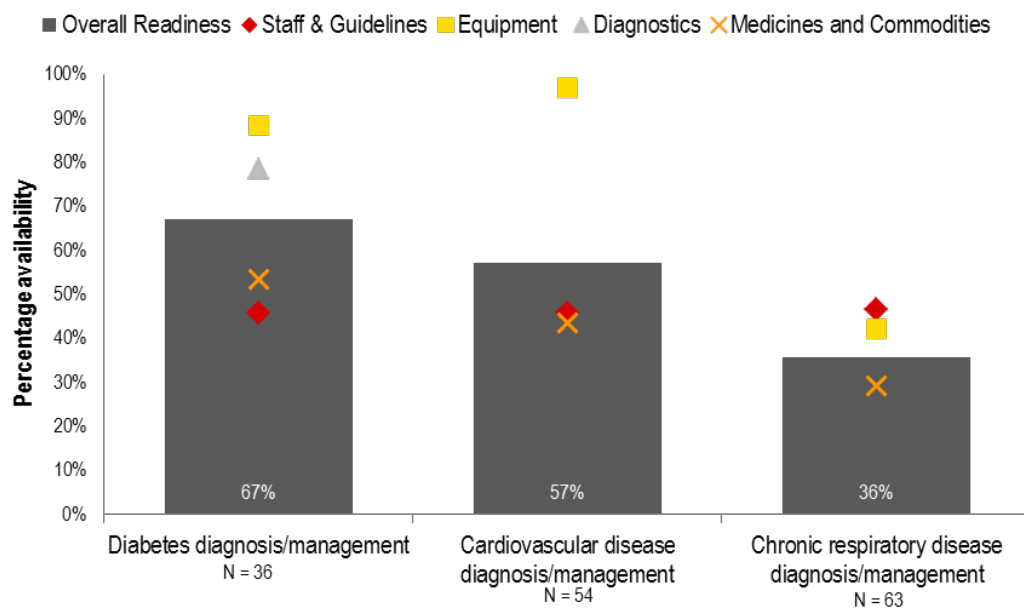
The percentage of facilities providing diagnosis and treatment for non-communicable diseases varied considerably. More facilities provided chronic respiratory disease diagnosis and/or management services (62%) and cardiovascular disease diagnosis and/or management services (50%) than diabetes diagnosis and/or management services (27%). The percentage of facilities providing diagnosis and treatment for non-communicable diseases is shown below in Figure 28.

Figure 28: Percentage of facilities offering non-communicable disease services (N = 95)



Non-communicable diseases services readiness scores varied considerably. Diabetes diagnosis and/or management services showed the highest readiness score (67%), while chronic respiratory disease diagnosis and/or management services showed the lowest readiness score (36%). Overall, scores for training and guidelines and medicines and commodities tended to be low, while scores for diagnostics and equipment tended to be higher across services. Figure 29 below shows the readiness scores and domain scores for the non-communicable disease services.

Figure 29: Non-communicable disease readiness overview



4. SURGICAL SERVICES

4.1 BASIC SURGERY

Table 35 shows the percentage of facilities providing basic(minor) surgery, as well as the following key services: incision and drainage, suturing, wound debridement, acute burn management, male circumcision, closed treatment of fracture, cricothyroidotomy, chest tube insertion, and hydrocele reduction. Approximately two-thirds of facilities provided basic surgical care. Incision and drainage of abscesses and suturing were the most common surgical interventions, available in approximately two-thirds of facilities.

Table 35: Percentage of facilities providing basic surgical services (N = 95)

| | 2012 |
|---------------------------------------|------------|
| Offers basic surgical services | 66% |
| Incision and drainage of abscesses | 65% |
| Suturing | 64% |
| Wound debridement | 50% |
| Acute burn management | 45% |
| Male circumcision | 30% |
| Closed treatment of fracture | 12% |
| Cricothyroidotomy | 11% |
| Chest tube insertion | 10% |
| Hydrocele reduction | 9% |

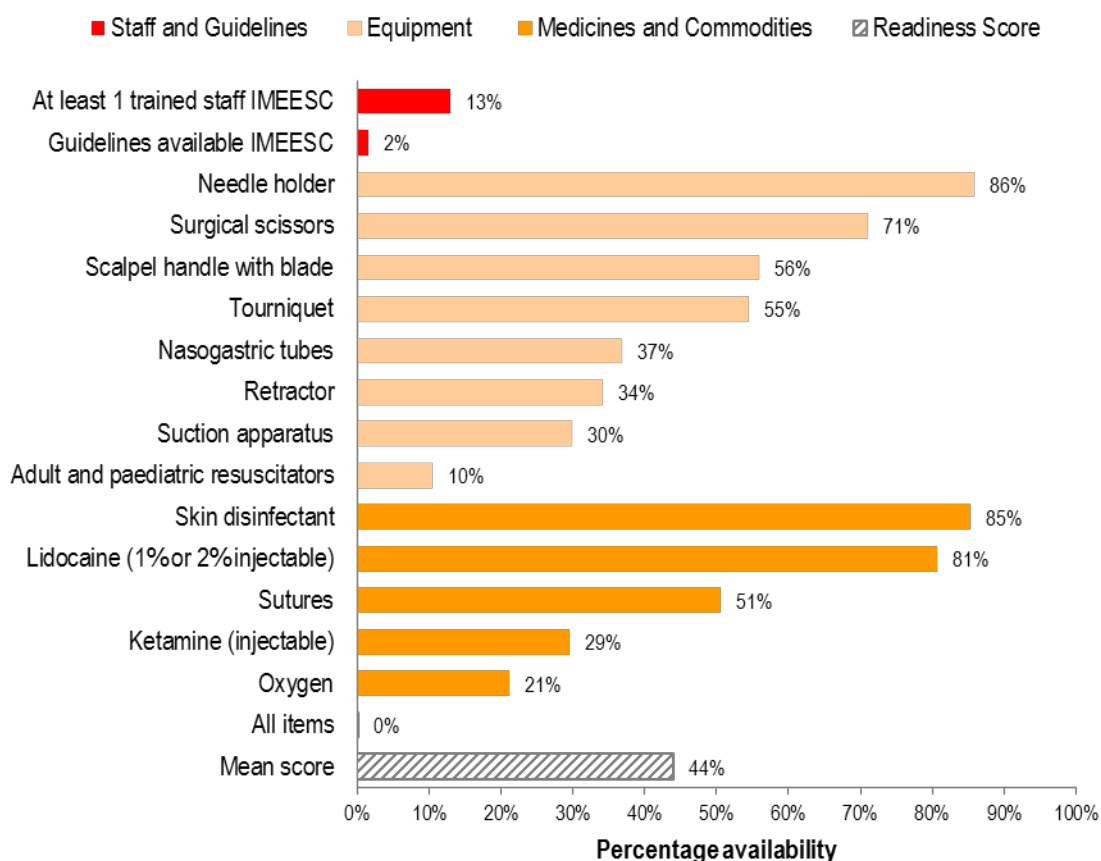
Readiness to provide basic surgical care was assessed based on the presence of the fifteen tracer items in Table 36.

Table 36: SARA tracer items for basic surgery

| Domains | Tracer items (% of facilities with item) |
|-------------------------|---|
| Staff & training | <ul style="list-style-type: none"> • Guidelines for Integrated Management for Emergency and Essential Surgical Care (IMEESC) • Staff trained in IMEESC in the past two years |
| Equipment | <ul style="list-style-type: none"> • Needle holder • Scalpel handle with blade • Retractor • Surgical scissors • Nasogastric tubes (10-16 FG) • Tourniquet • Resuscitators (adult and paediatric) • Suction apparatus |
| Medicines & commodities | <ul style="list-style-type: none"> • Oxygen cylinders or concentrators • Skin disinfectant • Sutures (absorbable and non-absorbable) • Ketamine (injectable) • Lidocaine (1% or 2% injectable) |

Figure 30 shows the percentage availability of these tracer items in facilities that offer basic surgery. No facilities had all 15 items; on average, facilities had seven of the 15 tracer items. While 85% of facilities providing basic surgery had skin disinfectant in stock on the day of the assessment, only half had sutures. Availability of ketamine and oxygen were low, as these items are generally only used in hospitals.

Figure 30: Percentage of facilities that have tracer items for basic surgical services among facilities that provide these services (N = 69)



4.2 COMPREHENSIVE SURGERY

Table 37 shows the percentage of facilities providing comprehensive surgery, as well as a variety of specific surgical services. Only 9% of facilities provided comprehensive surgical care. Dilatation and Curettage and episiotomy were the most common surgical interventions, available in 7% of facilities.

Table 37: Percentage of facilities providing comprehensive surgical services (N = 95)

| | 2012 |
|---|-----------|
| Offers comprehensive surgical services | 9% |
| Dilatation and Curettage | 7% |
| Episiotomy | 7% |
| Hernia repair | 6% |
| Congenital hernia repair | 5% |
| Laparotomy | 5% |
| Tubal ligation | 5% |
| Urethral stricture dilatation | 5% |
| Appendectomy | 4% |
| Cystostomy | 4% |
| Skin grafting | 4% |
| Vasectomy | 4% |
| Obstetric fistula repair | 3% |
| Open treatment of fracture | 3% |
| Tracheostomy | 3% |
| Amputation | 1% |
| Cataract surgery | 1% |
| Cleft lip repair | 1% |
| Contracture release | 1% |
| Neonatal surgery | 1% |

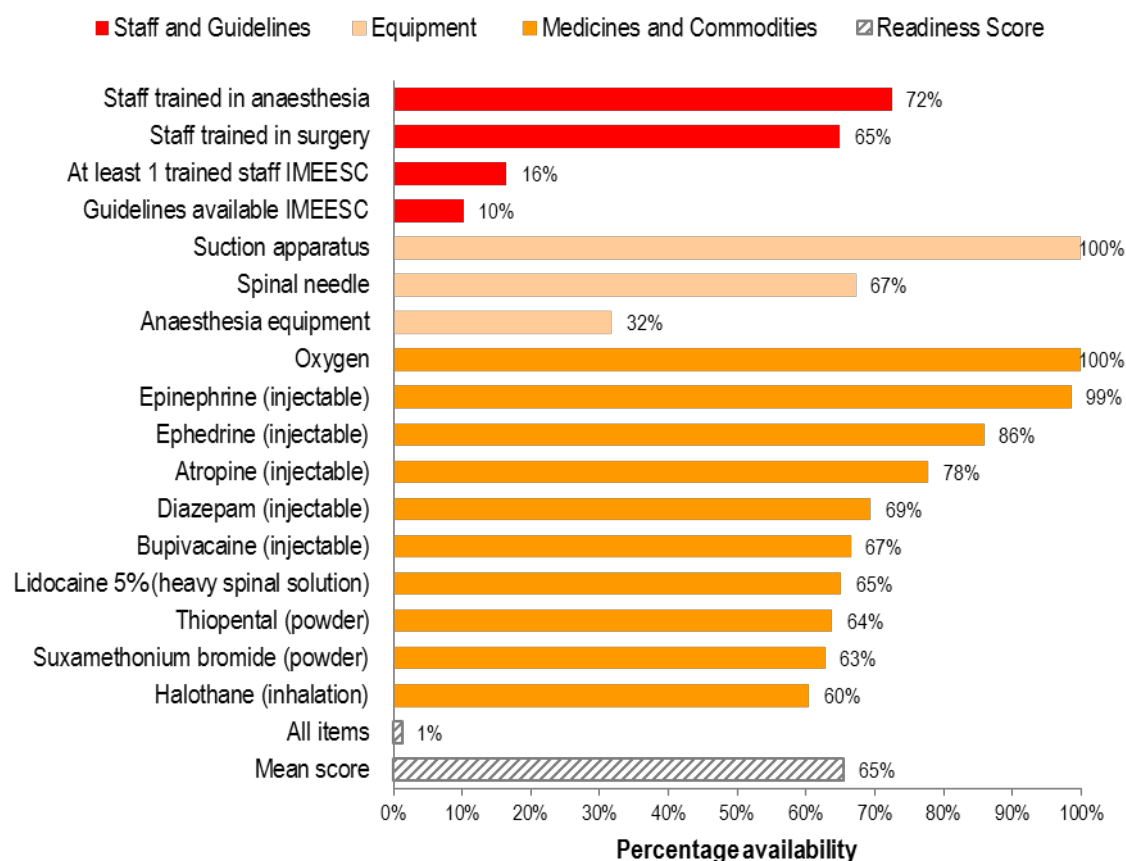
Readiness to provide comprehensive surgical care was assessed based on the presence of the sixteen tracer items in Table 38.

Table 38: SARA tracer items for comprehensive surgery

| Domains | Tracer items (% of facilities with item) |
|-------------------------|---|
| Staff & training | <ul style="list-style-type: none"> • Guidelines for Integrated Management for Emergency and Essential Surgical Care (IMEESC) • Staff trained in IMEESC in the past two years • Staff trained in surgery • Staff trained in anaesthesia |
| Equipment | <ul style="list-style-type: none"> • Anaesthesia equipment • Spinal needle • Suction apparatus |
| Medicines & commodities | <ul style="list-style-type: none"> • Oxygen cylinders or concentrators • Suxamethonium bromide (powder) • Atropine (injectable) • Diazepam (injectable) • Halothane (inhalation) • Bupivacaine (injectable) • Lidocaine 5% (heavy spinal solution) • Epinephrine (injectable) • Ephedrine (injectable) |

Figure 31 shows the percentage availability of these tracer items in facilities that offer comprehensive surgery. Almost no facilities (1%) had all 16 items; on average, facilities had ten of the 16 tracer items. While 100% of facilities providing comprehensive surgery had oxygen, only 32% had anesthesia equipment. Availability of trained staff and guidelines for IMEESC were low (16% and 10% respectively).

Figure 31: Percentage of facilities that have tracer items for comprehensive surgical services among facilities that provide these services (N = 15)



4.3 BLOOD TRANSFUSION

Table 39 shows the percentage of facilities providing blood transfusion services. 10% of facilities provided blood transfusion services.

Table 39: Percentage of facilities providing blood transfusion services (N = 95)

| | 2012 |
|--------------------------|------|
| Offers blood transfusion | 10% |

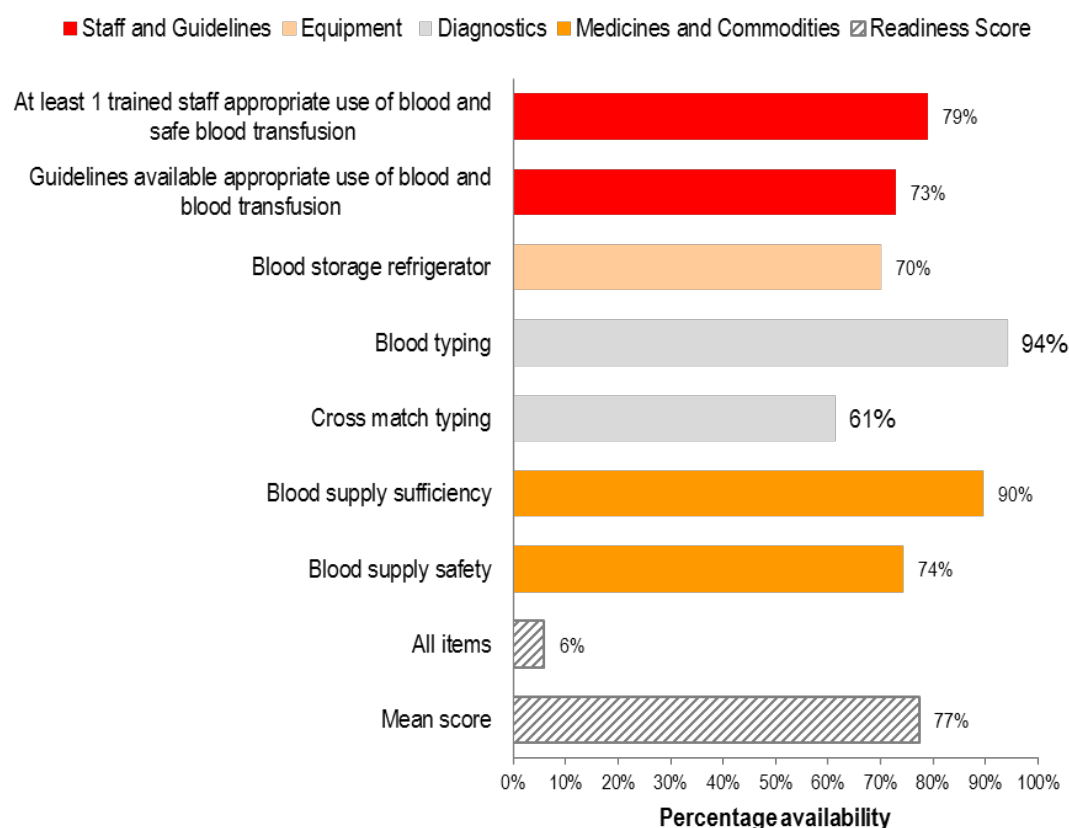
Readiness to provide blood transfusion services was assessed based on the presence of the seven tracer items shown in Table 40.

Table 40: SARA tracer items for blood transfusion

| Domains | Tracer items (% of facilities with item) |
|-------------------------|--|
| Staff & training | <ul style="list-style-type: none"> Guidelines for appropriate use of blood and safe blood transfusion Staff trained in appropriate use of blood and safe blood transfusion in the past two years |
| Equipment | <ul style="list-style-type: none"> Blood storage refrigerator |
| Diagnostics | <ul style="list-style-type: none"> Blood typing Cross match testing |
| Medicines & commodities | <ul style="list-style-type: none"> Blood supply sufficiency (no interruption in blood availability in past 3 months) Blood supply safety (blood obtained from national/regional blood bank OR all blood screened for transfusion transmissible diseases) |

Figure 32 shows the percentage availability of these tracer items in facilities that offer blood transfusion service. Only 6% facilities providing blood transfusions had all seven items; on average facilities had 5 of the seven tracer items.

Figure 32: Percentage of facilities that have tracer items for blood transfusion services among facilities that provide these services (N = 14)

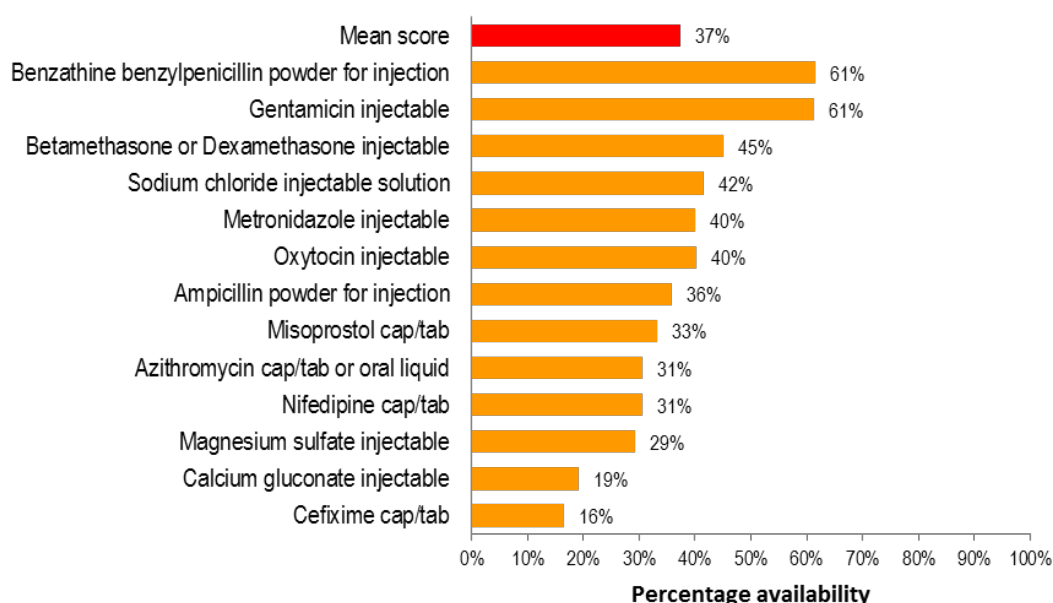


5. MEDICINES

5.1 ESSENTIAL MEDICINES FOR MOTHERS

Essential medicines for mothers was based on the availability of 13 essential medicines. On average, facilities had 5 of the thirteen medicines. Their availability varied across medicines with benzathine benzylpenicillin powder for injection and gentamicin injectable being the most widely available (61%) and cefixime cap/tab being the least widely available (16%). The availability of the 13 essential medicines is shown in Figure 33.

Figure 33: Percentage of facilities that have essential medicines for mothers observed in stock and valid (N = 95)



5.2 ESSENTIAL MEDICINES FOR CHILDREN

Essential medicines for children was based on the availability of 12 essential medicines. On average, facilities had 6 of the twelve medicines. Their availability varied across medicines with ORS sachets and ACT having the highest availability (88% and 80% respectively) and artesunate and morphine having the lowest availability (12% and 8% respectively). The availability of the 12 essential medicines is shown in Figure 34.

Figure 34: Percentage of facilities that have essential medicines for children observed in stock and valid (N = 95)

