



Enhanced Responses to Nutrition Emergencies

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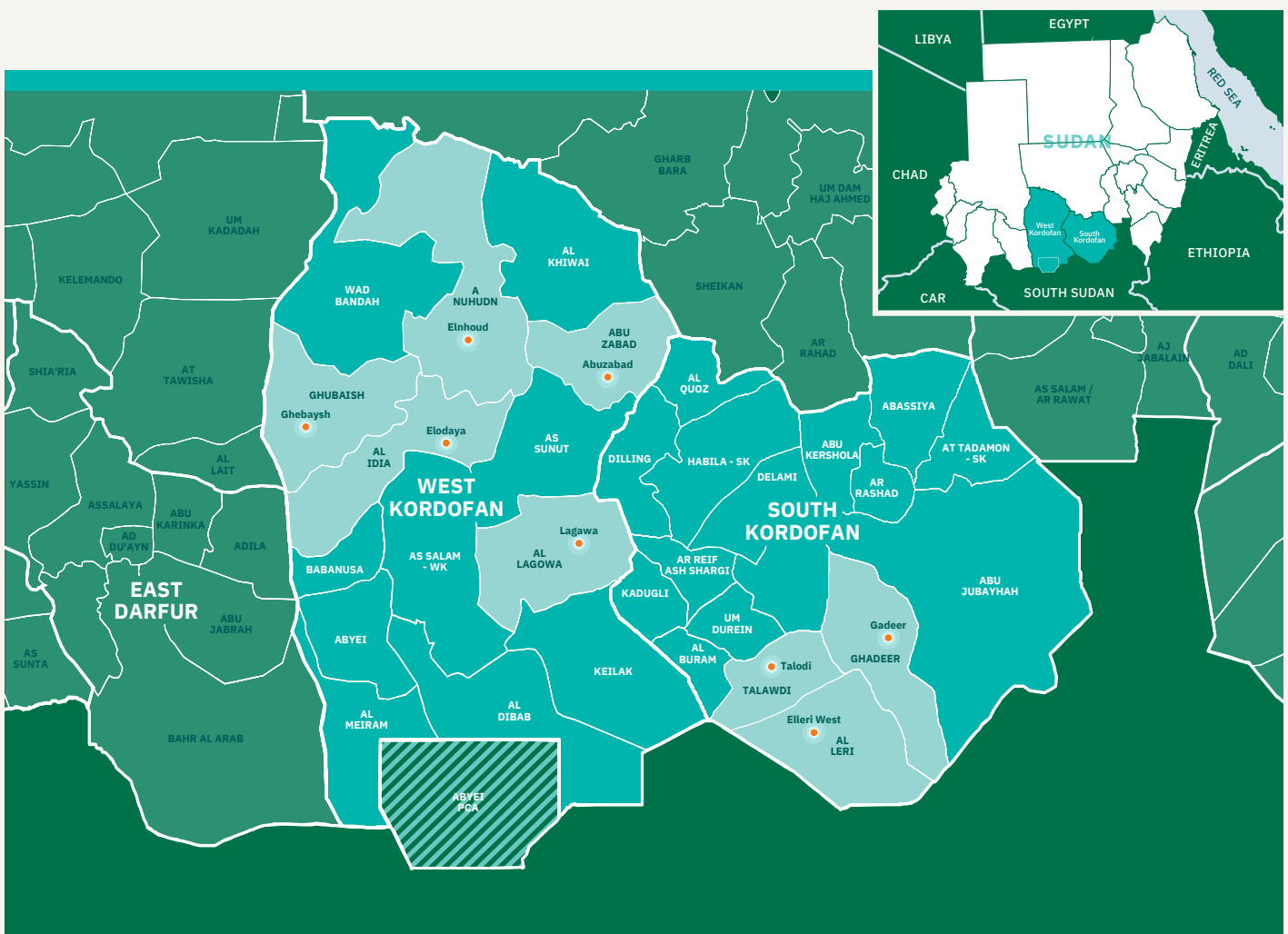
HEALTH FACILITY ASSESSMENT REPORT

West Kordofan (5 facilities/ Localities) &

South Kordofan (3 facilities/ Localities)

Republic of Sudan

JUNE 2021



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Acronyms

CMAM	Community-based Management of Acute Malnutrition
DDG	Digital Data Gathering (device)
EPI	Expanded programme on immunisation
ERNE	Enhanced Response to Nutrition Emergencies (Concern 5-country ECHO-funded programme)
FMOH	Federal Ministry of Health
GOS	Government of Sudan
HFA	Health facility assessment
HMIS	Health management information system
IMCI	Integrated management of childhood illness
JMP	Joint Monitoring Project (UNICEF/ WHO framework/ tool for assessing WASH capacity at health facilities)
LHSDs	Locality Health Service Departments
PHCC	Primary health care centre
SARA	Service Availability and Readiness Assessment (WHO tool for assessing health facility capacity)
SMOH	State Ministry of Health

Executive summary

This health facility assessment was conducted at eight health facilities (5 Rural Hospitals and 3 PHCCs) across eight localities in the states of South Kordofan (Elleri West, Talodi and Gadeer Localities) and West Kordofan (Abuzabad, Elnhoud, Elodaya, Ghebaysh and Lagawa Localities). The assessment covered 14 domains of health facility capacity. This represents only a sample of the facilities in the two states, but includes all the facilities targeted in year one of Concern's Enhanced Response to Nutrition Emergencies (ERNE) programme, which is ECHO-funded and runs from June 2020 to May 2023. The assessment tool was based on the [Service Readiness and Availability \(SARA\) tool](#), from the World Health Organisation (WHO), with additional elements for the five WASH modules drawn from the [Joint Monitoring Programme \(JMP\) for WASH](#) from UNICEF/ WHO and custom modules on staffing, nutrition service and COVID-19 added by Concern. Health facilities were scored out a possible total of 54 points. These scores were transformed into an overall percentage score. Scores for each of the 14 domains are also presented.

The average score for all eight facilities across all 14 domains was 30% (15.8 out of 54). The average score for South Kordofan was considerably lower (16%) than for West Kordofan (38%), possibly due in part two of the target facilities in South Kordofan being PHCCs rather than hospitals. Elnahoud hospital in West Kordofan scored the highest (64%), while Elsaraf PHCC scored the lowest (9%).

The highest scoring domains included staffing (67%) and nutrition services (60%). Modest scores were seen in Immunisation services (46%), general infrastructure (46%) and water infrastructure (44%). Low scores were seen in antenatal services (34%), health management information systems (31%), child health services management and supervision (25%), standard precautions (25%). Extremely low scores were seen in three of the five WASH domains: sanitation infrastructure (15%), environmental cleaning (9%) and hygiene/ hand-washing infrastructure (6%), as well as COVID-19 preparedness and response capacity (0%).

Priority actions have been identified to address the main gaps seen (see summary table in Section 5), and Concern plans to action as many of these as possible with the resources available in the ERNE project, but joint action will be required by all stakeholders to improve the current capacity. Priority actions include addressing staffing gaps in two of the South Kordofan facilities; urgent rehabilitation of latrines in at least three of the facilities and hand-washing facilities in seven facilities; carry out a more detailed assessment and action planning for WASH infrastructure and supply management using the WASH FIT tool in all eight facilities; support training via Federal or State Ministry of Health master trainers on IMCI, EPI, basic antenatal and emergency obstetrics care, HMIS, cleaning protocols; print and provide essential protocols and job aids, especially for IMCI, cleaning, antenatal services and IYCF; advocate for greater support for reproductive health supplies, especially iron/folate tablets and support for the cold chain via SMOH and UN partners; a more thorough assessment of the reasons for the total lack of COVID-19 preparedness and response capacity.

1. Objectives of the assessment

Concern Worldwide undertook the health facility assessment (HFA) in partnership with SMOH to understand the capacity of the eight health facilities targeted for support in year one of its Enhancing Response to Nutrition Emergencies (ERNE) Programme in South and West Kordofan. The aim of the project is to increase the scale, efficiency and effectiveness of humanitarian preparedness and response for food and nutrition security across five targeted countries, including Sudan. The programme runs from June 2020 to May 2023 and an important component is strengthening local health systems to deliver essential health and nutrition services to prevent and treat priority child illnesses and child wasting. One of the main intended outcomes of the programme is to ensure that 80% percent of supported health facilities show an increase in capacity according to the health facility capacity assessment.

The specific objectives of the assessment were to:

1. Identify and prioritise health facilities that are most in need of support to deliver effective health services
2. Identify specific areas of weaknesses in health service delivery and develop a tailored support plan
3. Measure changes in health facility capacity over time

Concern developed a specific health facility assessment (HFA) tool in digital format to assess the capacity of the target health facilities under each of the WHO's health system building blocks (see methodology section below).

The HFA was conducted from May to June 2021 and targeted the following eight health facilities (Table 1).

TABLE 1. List of Health Facilities targeted by the ERNE programme year one and this assessment

STATE	LOCALITY	HEALTH FACILITY
South Kordofan	Elleri West Locality	Alsaraf PHCC
	Talodi Locality	Abdelfadeel Almaz PHCC
	Gadeer Locality	Morong PHCC
West Kordofan	Abu zabad Locality	Abu zabad Locality Hospital
	Elnhoud Locality	Elnhoud Women's & Children's Hospital
	Elodaya Locality	Elodaya Rural/ Locality Hospital
	Ghebaysh Locality	Ghebaysh Rural/ Locality Hospital
	Lagawa Locality	Lagawa Rural/ Locality Hospital

2. Background / Context

South Kordofan is one of the 18 states that make up the Republic of Sudan. It is in central Sudan, situated on the border between the mainly Arabic North and the more African South Sudan. It is bordered by Darfur in the west; South Sudan to the south; and White Nile and North Kordofan to the north. The state capital is Kadugli. The total population as of 2021 is 1,629,957. The landscape is characterized by flat thorn bush savannah, grassland with acacia and

baobab trees, which resembles desert in the dry season. There are five main rivers, four of which flow seasonally. The total area is around 132,000km², and the Nuba Mountains cover roughly one-third of that area. South Kordofan is divided into fourteen Localities (administrative units), each governed by a Commissioner. This assessment took place at health facilities in three of them.

West Kordofan State is located in the south-western side of the Kordofan Region. In 2006 it had an area of 111,373 km² and an estimated population of approximately 1,320,405. Al-Fulah is the capital of the state. Its north is characterized by moderate to light rain and sandy soil. It is one of the most prominent centres of the Misseriya a branch of the Baggara ethnic group. West Kordofan is also divided into fourteen localities. This assessment took place at health facilities in five of them.

Concern Worldwide (Concern) is a non-governmental, international, humanitarian organisations dedicated to the reduction of suffering and working towards the elimination of extreme poverty in the world's poorest countries. Concern has been working Sudan since 1985 in response to refugees entering the country from Ethiopia. Currently, Concern Worldwide works in three main areas in the Republic of Sudan: West Darfur State, and South and West Kordofan States. The Programmes focus on Nutrition, Health, Food Security and Livelihood and WASH targeting the host communities, internally displaced communities and refugees.

Concern is currently implementing a nutrition resilience Programme entitled “Enhanced Responses to Nutrition Emergencies (ERNE)” in South and West Kordofan, Sudan. The Programme aim is to contribute to reducing malnutrition morbidity and mortality among children under five through increase scale, efficiency and effectiveness of humanitarian preparedness and response for food and nutrition security in South and West Kordofan states. The ERNE Programme is composed of three pillars:

- **Pillar 1:** Life Saving Response ensures the provision of primary health, nutrition services and cash transfers in times of humanitarian need.
- **Pillar 2:** Preparedness and local capacity to respond to reduce the impact of nutrition and food security shocks.
- **Pillar 3:** Nutritional resilience focuses on understanding and addressing the underlying factors that make people vulnerable to undernutrition.

3. Methodology

3.1 The HFA tool

The HFA tool was developed by Concern and is based largely on the [WHO's Service Readiness and Availability \(SARA\) tool](#). It includes 14 modules covering 14 domains that align with the six WHO health system building blocks. The four WASH modules draw from the tools used by the [UNICEF / WHO's Joint Monitoring Programme \(JMP\) for WASH](#), and Concern developed three custom modules for health facility staffing levels, nutrition service readiness and availability and COVID-19 (Table 1).

Concern translated the HFA questions into a digital data gathering (DDG) tool using the Iform builder platform. The standard digital tool was customised to the country context by modifying details of the answer options, but the questions and scoring remained the same to allow basic comparisons across countries.

TABLE 2. HFA modules / domains by health system building block and source

HEALTH SYSTEM BUILDING BLOCK	DOMAIN/ MODULE	SOURCE
Health workforce	1. Staffing	Concern (based on national standards)
Health information	2. Health information management system	SARA
Leadership & governance	3. Management and supervision	SARA, adapted
Service delivery	4. General infrastructure	SARA
Service delivery	5. Water infrastructure	JMP
Service delivery	6. Sanitation infrastructure	JMP
Service delivery	7. Hand hygiene infrastructure	JMP
Service delivery	8. Environmental cleaning	SARA/ JMP
Service delivery	9. Standard precautions	SARA
Service delivery + access to essential medicines	10. Child health service availability & readiness	SARA
Service delivery + access to essential medicines	11. Immunisation service availability & readiness	SARA
Service delivery + access to essential medicines	12. Nutrition service availability & readiness	Concern
Service delivery + access to essential medicines	13. Antenatal care service availability & readiness	SARA
Service delivery + access to essential medicines	14. COVID-19 preparedness & response capacity	Concern

3.2 HFA tool structure and scoring

The tool has a total of 107 questions structured around 54 sub-indicators¹ which are structured around the 14 domains outlined above. Each domain has between 1 and 5 sub-indicators. Each sub-indicator includes 1 to 8 questions.

The questions lay out a set of conditions that need to be met in order for the sub-indicator to be scored 1 (a 'pass'). Otherwise the sub-indicator is scored as a 0 (a 'fail'). Answers to the questions are either yes/ no or multiple-choice and depend on the response of the health facility staff being interviewed or require the enumerator to observe that item is present in the health facility.

The score for each sub-indicators is therefore either 1 or 0. The raw score for each domain is the sum of the score for all the sub-indicators that it includes (which varies by domain but will be between 1 and 5). The raw score for the overall capacity of health facility is the sum of the score for all the 54 sub-indicators included in the tool.

In addition to the raw score, the % score is calculated for both overall and the domain. The percent score for a domain is the raw score converted to a

1. Due to an error in the coding for the Child Health Services domain, sub-domain on child diagnostic tests – specifically the availability of Rapid Diagnostic Tests for malaria – had only missing data. It was therefore removed from the calculations for the Child Health Domain. The original 5 sub-domains were reduced to 4 sub-domains, meaning the total possible points for this baseline is 53 not 54, but this will be fixed for endline and the total possible score will be out of 54 again.

percent by dividing it by the total possible points for that domain (between 1 and 5 depending on how many sub-indicators are associated with that domain). The percent score for a health facility's overall capacity is the raw score divided by 54 (the total number of sub-indicators). Throughout the report, the raw scores and % scores are presented for individual facilities and as an average across facilities. In addition, the % of health facilities assessed that got a passing score (a 1) for each of the 54 sub-indicators is also provided.

3.3 Enumerators, training and testing

On the finalization of the assessment tool, Arabic translation was done and the independent consultant validated translation. The Health and Nutrition team with qualifications and experience in public health was oriented on the assessment tool. At phase one, orientation was provided with the paper based tools, in the second phase team was oriented on using DDG and in third phase the assessment tool orientation was provided on the DDG. The tool was pilot tested in facilities not targeted for the assessment and responses were also validated and crosschecked by the team providing the IT support and technical inputs. Adhering to the Government of Sudan (GOS) protocols a written approval was sought before the commencement of the actual data collection by submitting the hard and soft copies of the tools and SMOH staffs were also involved in the training and data collection.

3.4 Limitations

A number of limitations in the implementation of the assessment should be considered when interpreting the findings. These include

- It was not possible to carry out the assessment in one visit in the Localities of Gadeer and Elliri West due to increased in-security and tribal clashes; the data was collected in two or three visits.
- Real time data synchronization was not possible on a daily basis due to poor network coverage at the field location. It was only possible when teams reached to the Concern field offices, which made it difficult to identify missing data before it was too late to correct.
- Data is missing under the Child Health Services module for three health facilities (Abuzabad, Ghebayish and Lagawa hospitals) due to confusion / error by enumerators when entering which services were available in these health facilities (they ticked 'no' for sick child services). This meant none of the child health service questions were asked, which may result in a skewed perspective on child health service capacity.
- Data is missing under the Immunisation Services module for two health facilities (Alsaraf PHCC and Abu zabad Hospital) due to an error in the logic in the DDG devices, which only asked questions on vaccines and vaccination equipment if the health facility first reported 'routinely storing' vaccines. Both should be routinely storing vaccines as they have an EPI programme, but Abuzabad's EPI office is outside the compound of the hospital and was not visited.
- The sub-domain on diagnostic testing capacity under the Child Health Services domain had an error in the skip logic, which resulted in the stock check for rapid diagnostic tests for malaria being skipped for all health facilities. Thus the total sub-domains for Child Health Services was reduced from the original 5 to 4 (diagnostic testing capacity was considered missing). This will be fixed for endline.

4. Findings

4.1 General findings

Overall, capacity was quite low. The average percent score across all eight facilities was 29% (Figure 1). The average raw score across all facilities was 15.8 out of a possible total of 54 points (Figure 2). Elnhoud Hospital had the highest score (65%) and Alsaraf PHCC had the lowest score (9%), followed by Morong PHCC with the second lowest (17%) and Abdelfadeel almaz PHCC with the third lowest (20%). The remaining four facilities scored roughly the same (around 30%). The raw scores, which the percent scores are based on, are also presented below (Figure 2).

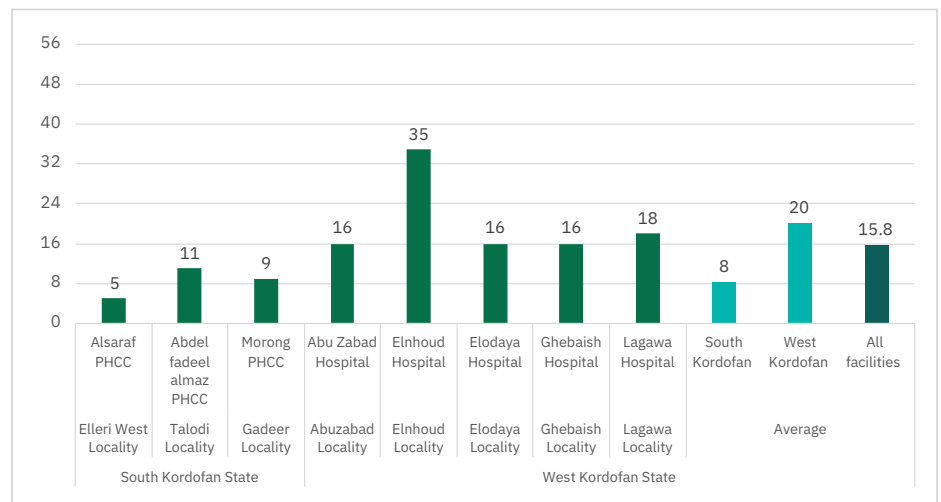


FIGURE 1. Overall raw score by domain: by facility and average for all eight facilities

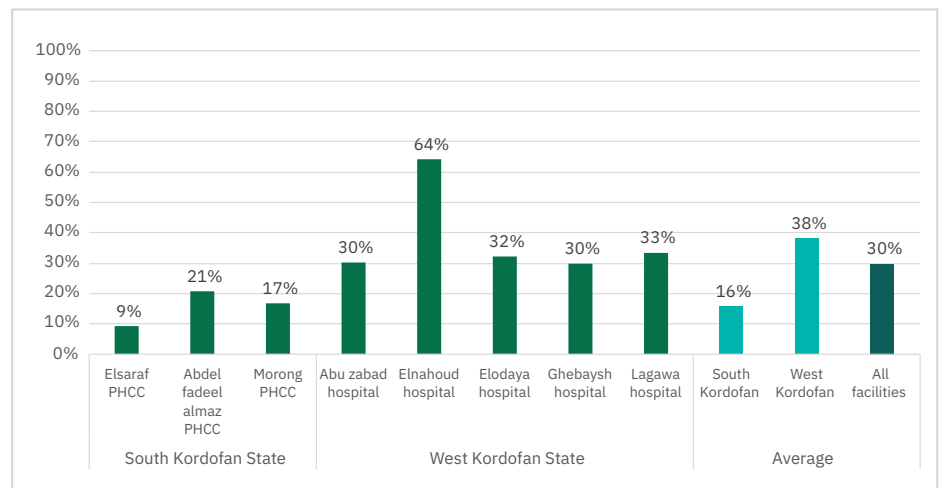


FIGURE 2. Overall percent score: by facility and average for all eight facilities.

Capacity by domain varied considerably when considering the average score across the eight facilities (Figure 3). Staffing was the highest scoring domain (67%), followed by Nutrition Services (60%), General infrastructure (46%), and Water Infrastructure (44%). The lowest scoring domain was COVID-19 preparedness and response (0%), followed by hygiene (handwashing) infrastructure (6%), and environmental cleaning (9%). The remaining seven domains scored between 15% and 34%. Almost all domain scores are concerning and indicate a need for solid support to improve capacity.

Comparing the average scores for each of the two states, West Kordofan (37.4%) scored higher than South Kordofan (15.4%). West Kordofan scored consistently higher across all 14 domains except HMIS and Management and Supervision (Figure 4).

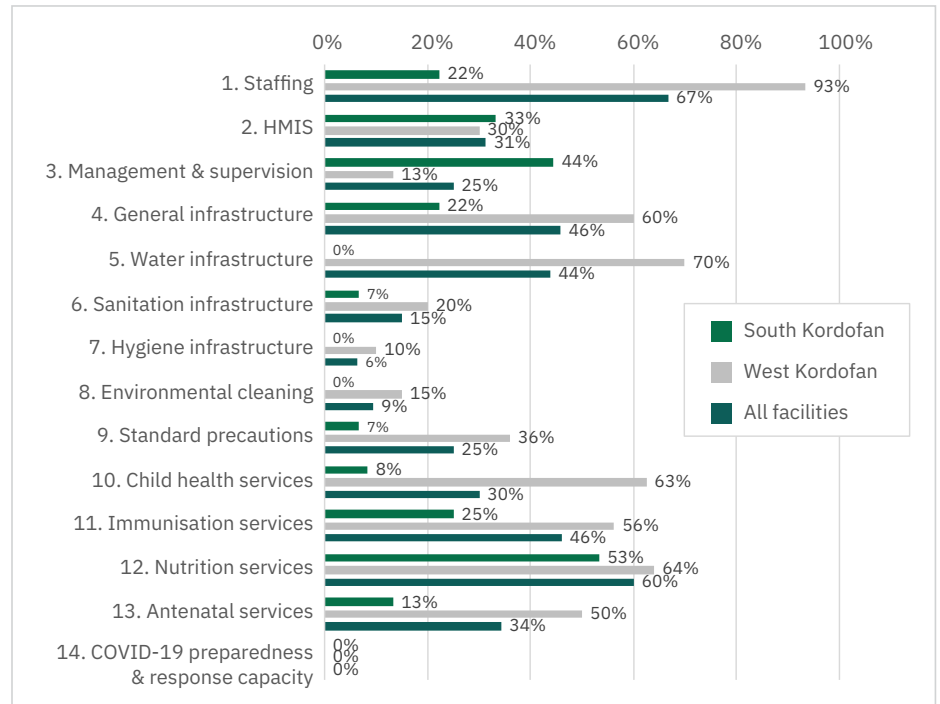


FIGURE 3. Average percent score by domain: South Kordofan (5 facilities), West Kordofan (3 facilities) & all facilities

4.2 Detailed findings by domain and sub-domain

This section provides more detail on the scores per domain for each health facility as well as the percent of health facilities that met the minimum criteria to get a ‘pass’ for each of the sub-domains that make up the domain and its total possible score. Details on the sub-indicators scores (pass or fail) for each health facility is outlined in Annex 1, and the exact questions asked for each of the subdomains is provided in Annex 5.

4.2.1 Staffing

Four of the health facilities reached the minimum standard of having at least half of all the assigned professional, associate and support staff per national protocol present on the day of the survey (score of 100%). Two achieved that for two of the three staff categories (score of 67%). Alsaraf and Morong PHCCs did not meet that standard for any of the three staff categories, meaning that less than half of all of the staff assigned to the facility per national guidelines were present and working on the day of the assessment.

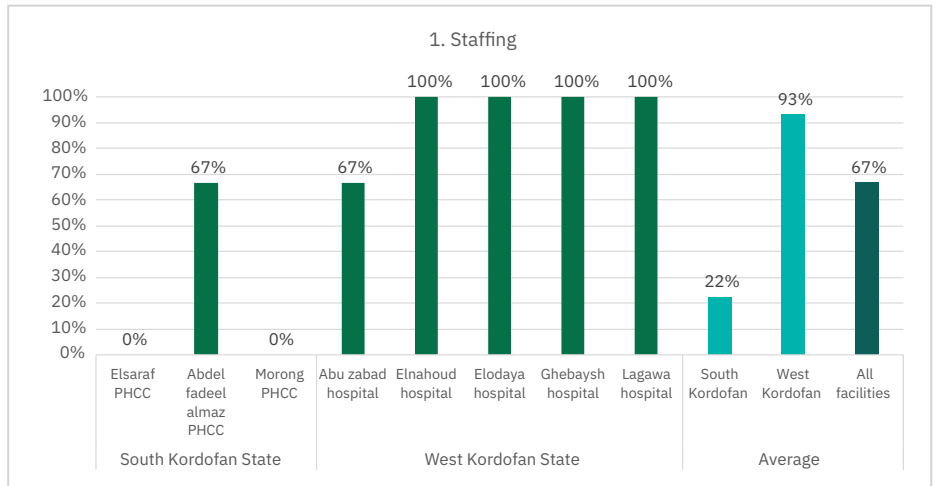


FIGURE 4. Average percent score for staffing domain: by facility

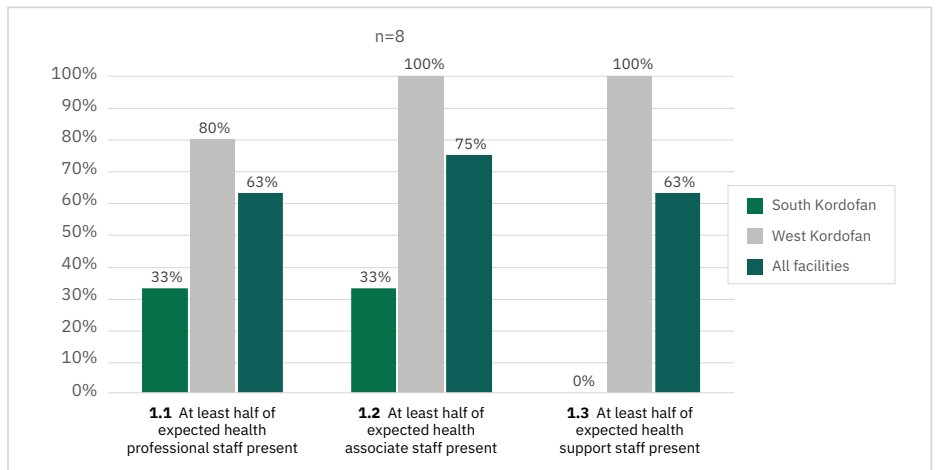


FIGURE 5. Percent of health facilities achieving each sub-domain for staffing

Priority actions needed to improve staffing

- Work directly with the Locality Health Service Departments and SMOH and the Health Directors of each facility to understand the extremely low staffing levels observed at Alsaraf and Morong PHCCs and identify solutions.
- Work with Locality Health Health Service Departments and SMOH to deploy more professional staff at health facilities generally.
- Harmonise and provide clarity on incentives being provided to SMOH staff by partners
- Share findings with the Health Sector for priority planning for health resource.

4.2.2 HMIS

The average score for HMIS across all facilities was 31%. Lagawa hospital scored the highest (100%). Four facilities – Alsaraf, Morong, Abu zabad, Elodaya, Ghebayish - appeared to have no capacity in HMIS (0%). In these four facilities, there was no evidence of HMIS being used (sub-domain 2) and the staff in charge reported that there was actually no health information system in place (sub-domain 1).

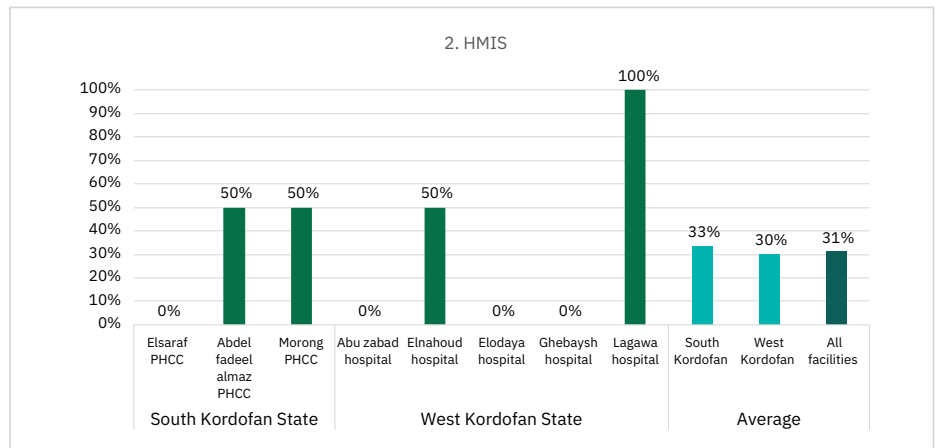


FIGURE 6. Average percent score for HMIS domain: by facility

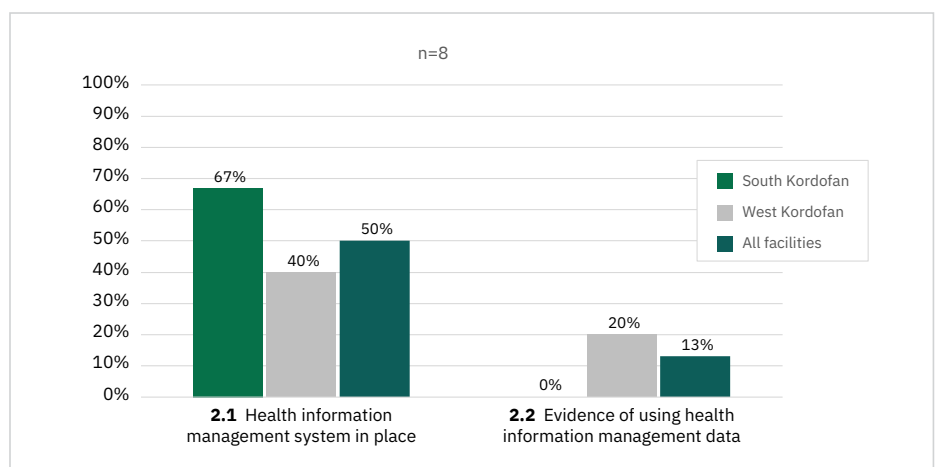


FIGURE 7. Percent of health facilities achieving each sub-domain for HMIS

Priority actions needed to improve HMIS capacity

- Ensure Statistics Officers are visiting and providing support to all facilities, prioritising Alsaraf, Abuzabad, Elodaya and Ghebayish facilities
- Develop and carry out a capacity building plan including formal and on-the-job training focused on HMIS with State and Locality Health counterparts.
- Support all health facilities to digitalise the HMIS data collection/ entry, providing essential equipment for this as needed.
- Advocate for Android based DHIS 2 roll out in the facilities having challenges with HMIS for South and West Kordofan, in line with the FMOH’s initiative in this area.

4.2.3 Management and Supervision

The average score for Management and Supervision was low (25%). Three of the health facilities did not meet the minimum criteria for this domain (score of 0%) (Figure 9). None of the eight health facilities reported having an internal health facility management committee in place and functional. Meanwhile only 13% (1 health facility, Morong PHCC) reported having a community health management committee in place and functional (Figure 10). Nearly two-thirds (63% or 5 health facilities) reported they had received a supervision visit during the past three months.

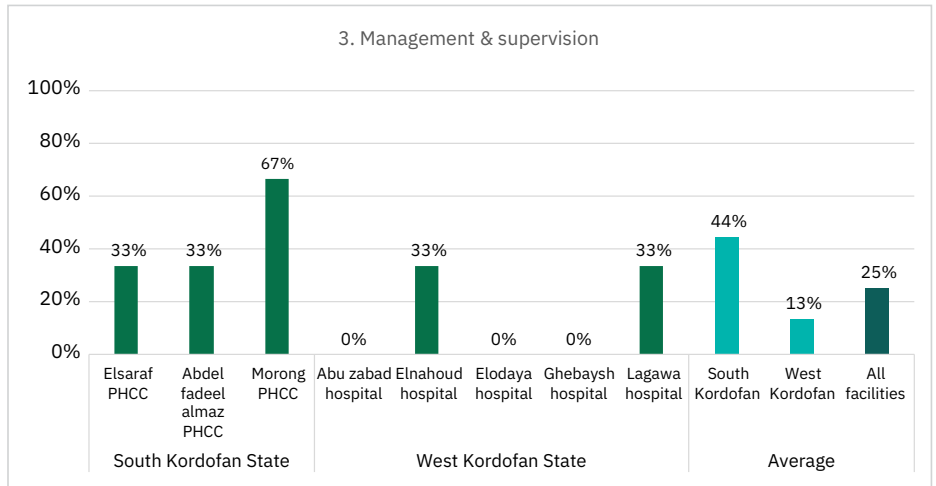


FIGURE 8. Average percent score for management and supervision domain: by facility

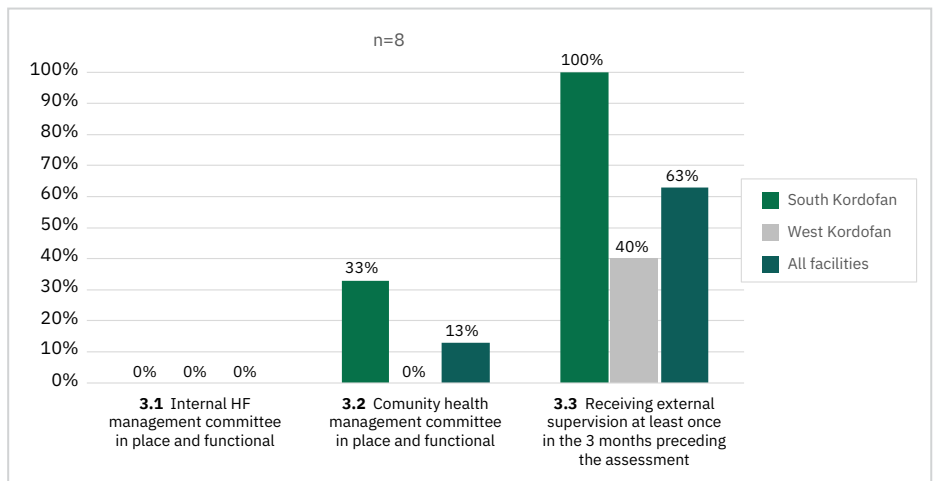


FIGURE 9. Percent of health facilities achieving each sub-domain for management and supervision

Priority actions needed to improve management and supervision capacity

- Support communities and health staff to form and train community health committees for all eight health facility catchment areas per FMOH guidelines.
- Further assess the status of internal management committees in each of the eight facilities with the Locality Health authorities and SMOH vis-à-vis government guidelines.
- Promote more frequent supportive supervision visits by SMOH/ LHSD to health facilities.

4.2.4 General Infrastructure

The average score on general infrastructure was fair/ modest (46%). Once again, Elnhoud Hospital scored highest (100%) and Alsaraf PHCC scored lowest (0%) (Figure 11). While most facilities had a functioning power supply of some type (88%), a smaller portion had functioning communication equipment (38%) and only one (13%, Elnhoud Hospital) had emergency transport that was functioning (Figure 12).

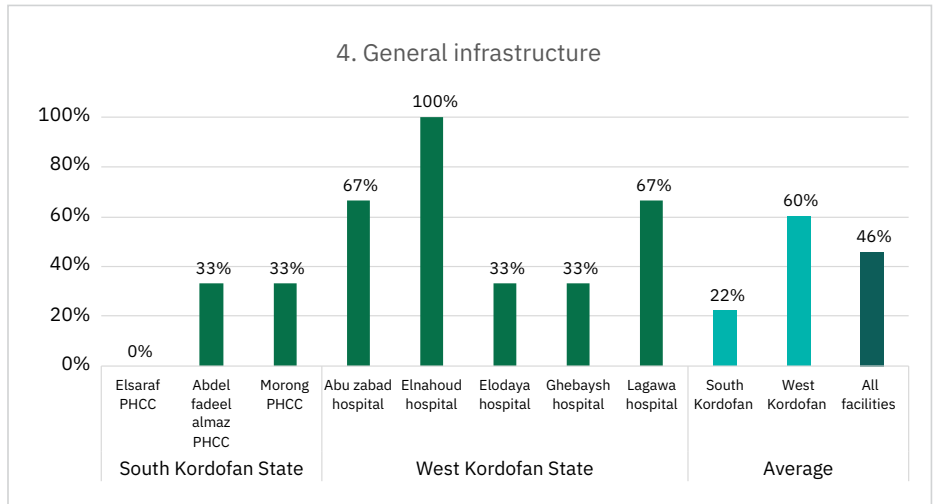


FIGURE 10. Average percent score for General Infrastructure: by facility

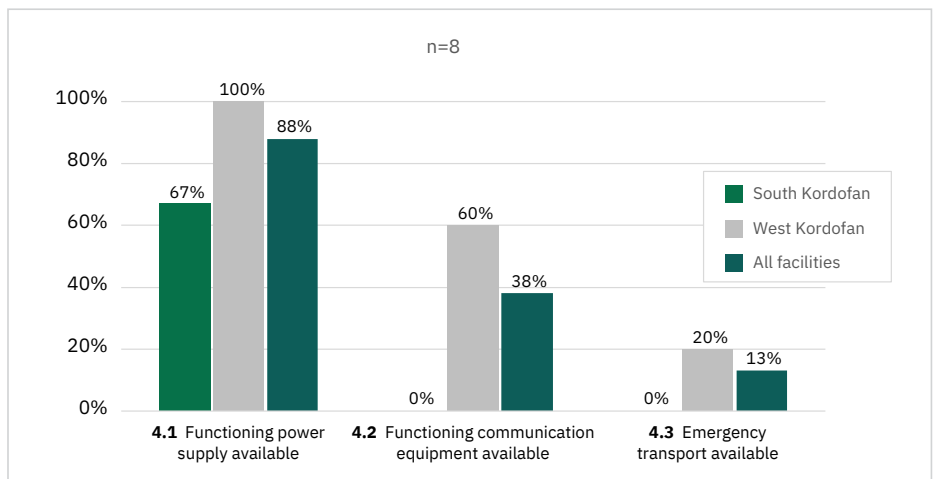


FIGURE 11. Percent of health facilities achieving each sub-domain for general infrastructure

Priority actions needed to improve general infrastructure

- Further assess Elsarraf PHCC regarding its power supply and potential options for support with the Locality Health authorities.
- Support to health facilities on minor repair of ambulances where appropriate.
- Explore possible community-supported transport options for referrals, for example ‘donkey ambulances’ or three-wheel vehicles (‘tuktuk’) or rotating transport funds.
- Further assess gaps and options for improved communication equipment/ credit with the LHSD.

4.2.5 Water Infrastructure

The average score for water infrastructure was modest/ fair (43%), but there was significant variation across the facilities (Figure 13). Only one facility (Abu zabad Hospital) met all the criteria (score of 100%); three had a reasonably good score (75%). The three facilities in South Kordofan (Alsaraf, Abdelfadeel almaz and Morong), however, did not meet any of the minimum criteria for WASH Infrastructure, meaning even their main water supply was

not from an improved source and functioning on the day of the survey, which is very serious. Furthermore, only three (38%) of health facilities had an improved and functioning water source on the premises of the health facility, and only two (25%) had continuous water supply without disruption (Figure 14). Only half of health facilities said the water supply was sufficient to meet their needs to operate health services safely.

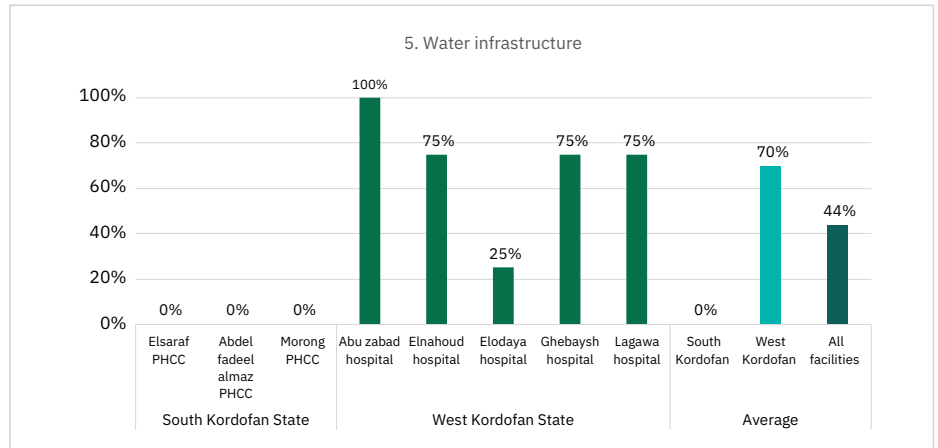


FIGURE 12. Percent score for water infrastructure domain: by facility

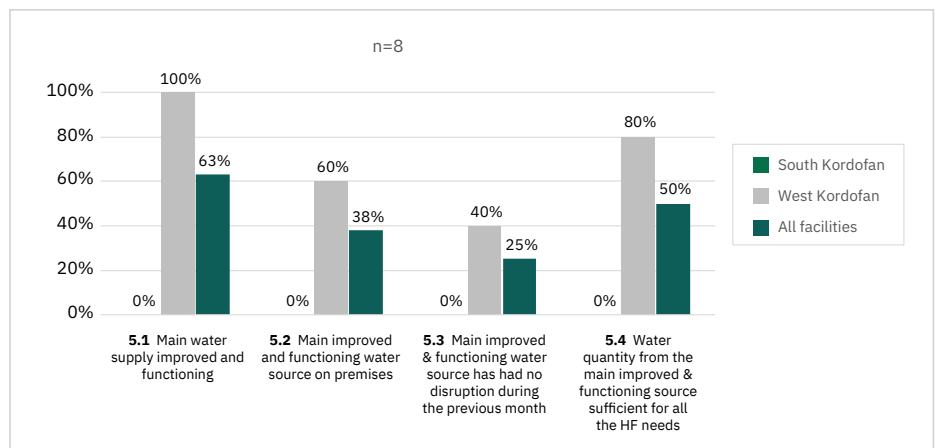


FIGURE 13. Percent of health facilities achieving each sub-domain for water infrastructure

Priority actions needed to improve water infrastructure

- Carry out WASH Fit Assessment and response in all HFs with MoH and Health Facility staff to refine key priority areas for improvement, especially management of existing water system
- Engage with Water and Environmental Sanitation (WES) Department to identify options for improved water sources in facilities where they are lacking (either non-existent or not functioning on day of survey), particularly Alsaraf, Abdelfadeel almaz and Morong PHCCs in South Kordofan, and ensure their engagement in the WASHFIT analysis
- Consider water trucking if needed.

4.2.6 Sanitation Infrastructure

Sanitation Infrastructure scored very low (15%) and was, in fact, the fourth lowest scoring of the 14 domains (after Environmental Cleaning at 9%;

Hygiene Infrastructure at 6%; and COVID-19 Preparedness and Response at 0%). Apart from Elnahoud Hospital (80%), which was a relatively high-scoring facility across nearly all domains, all facilities scored very low (20%) or no capacity (0%) (Figure 15). Only three health facilities (38%) had an improved toilet that was usable (functional, safe and private). None of the facilities had four toilets (sub-domain 2), which would allow them to have at least one toilet with menstrual hygiene management (MHM, currently available at only 1 facility/ 13%); one toilet dedicated for staff only (currently available at only 1 facility/ 13%) and one toilet accessible for people with limited mobility (currently only 1 facility/ 13%).

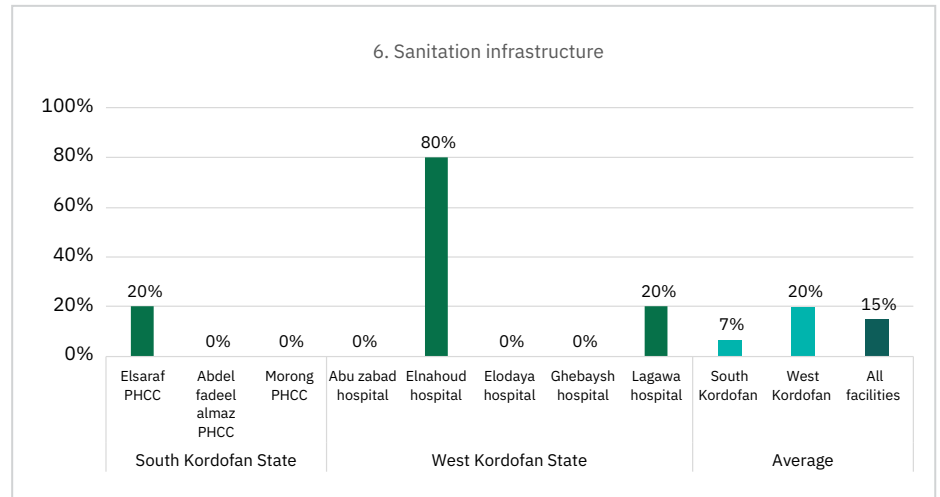


FIGURE 14. Average percent score for sanitation infrastructure domain

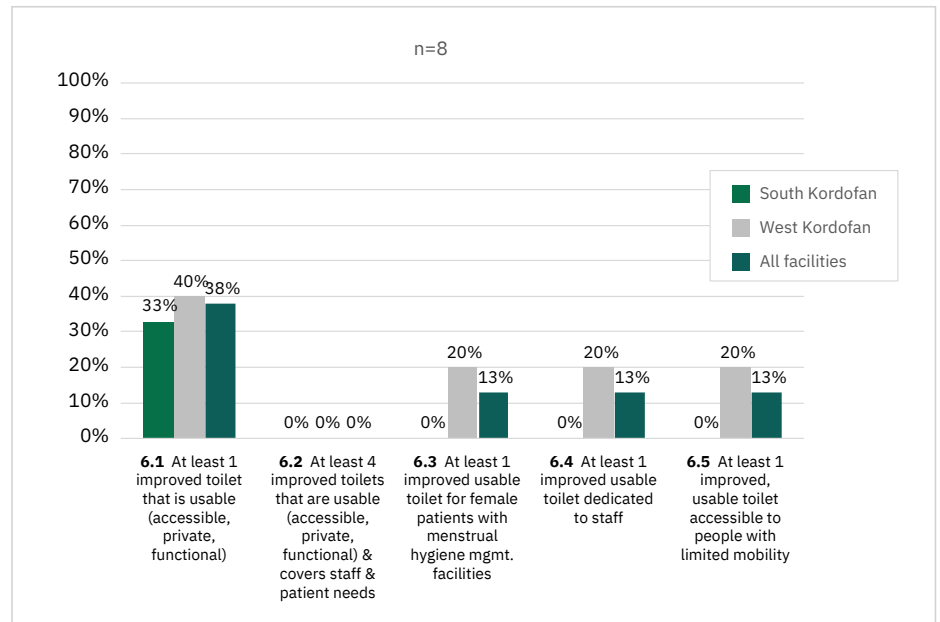


FIGURE 15. Percent of health facilities achieving each of the three sub-domains for sanitation infrastructure

Priority actions needed to improve sanitation infrastructure

- Agree an immediate action plan with the LHSD and SMOH to address the complete lack of functional toilets in 3 health facilities (Abdel fadeel almaz PHCC, Morong PHCC and Ghebaish hospital) and the reasons they are not functional.

- Carry out Wash-FIT assessment and response in all HF's with MoH and Health Facility staff to refine key priority areas for improvements, particularly improved management of sanitation facilities based on problems to date
- Support for construction of gender segregated VIP latrines, possibly via linkages with CLTS or food-for-assets programme.

4.2.7 Hygiene (Handwashing) Infrastructure

The average score for hygiene was extremely low (6%) – the third lowest domain score (Figure 17). With the exception of Elnhoud Hopstia, all health facilities scored 0%, meaning they did not have a hand washing station with water and soap or alcohol-based hand rub at the entrance to the main waiting area/ child consultation area (sub-domain 1) or with water and soap within five meters of the toilet (sub-domain 2). This is very worrying but likely affected by the fact that 75% of health facilities did not have an improved and functioning water source with continuous supply on the premises (Figure 18). Elnhoud Hospital only achieved a score of 50% because they did not have equipped handwashing stations within 5 meters of the toilet.

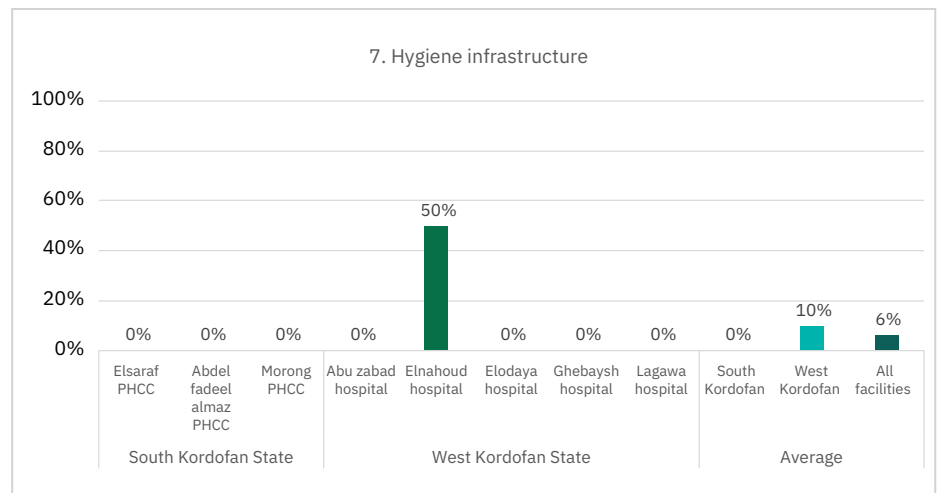


FIGURE 16. Percent score for hygiene infrastructure by facility

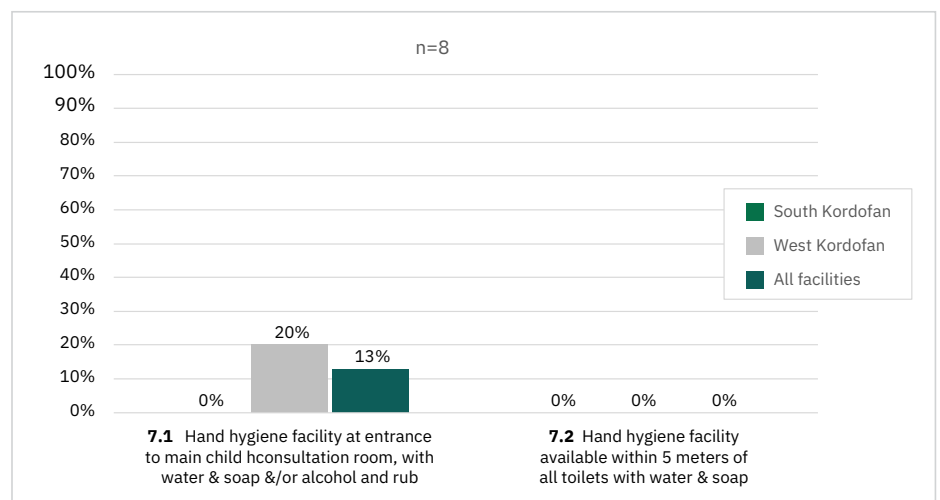


FIGURE 17. Percent of health facilities achieving each sub-domain for hygiene infrastructure

Priority actions needed to improve hygiene infrastructure

- Carry out WASH-FIT Assessment in all HFs with MoH and health facility staff to further define key priority areas for improvements, particularly how to better manage hand washing facilities and procurement of hygiene materials in the future, particularly in those that do have accessible water for some quick wins, while looking at the broader issue of water access where not available per above.
- Support construction of handwashing stations and agree and train who will manage them, including ensuring water and soap is available at all times.

4.2.8 Environmental Cleaning

Environmental Cleaning also had a very low average score (9%). Apart from Elhhoud Hosptial (50%) and Elodaya Hospital (25%), all other facilities scored 0% (Figure 19). Facilities scored very poorly across all four sub-domains: only one had an adequate cleaning protocol/ roster; none reported having a staff trained in cleaning protocols; only one had adequate cleaning supplies; and only one facility looked visibly clean (Figure 20).

Facilities had different levels of cleaning supplies and personal protective equipment in place (Figure 21). Note, there is some overlap between the environmental cleaning supplies and the COVID-19 preparedness and response supplies so they are presented together below.

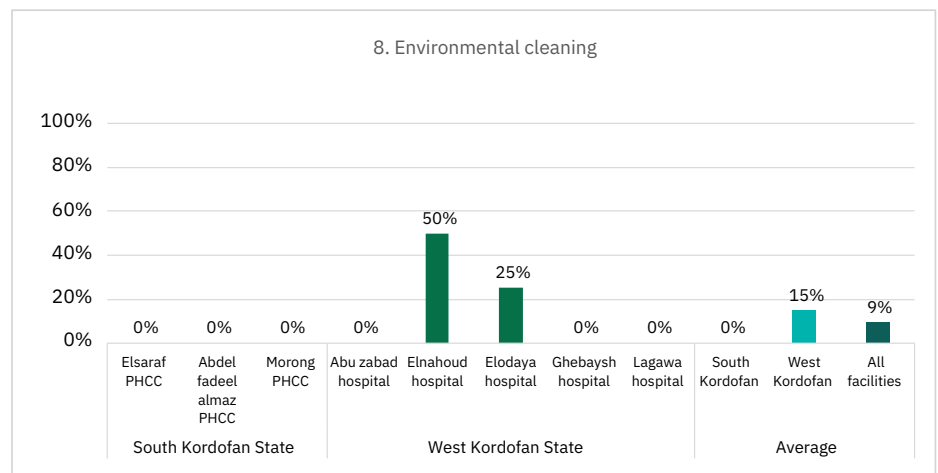


FIGURE 18. Percent score for environmental cleaning domain: by facility

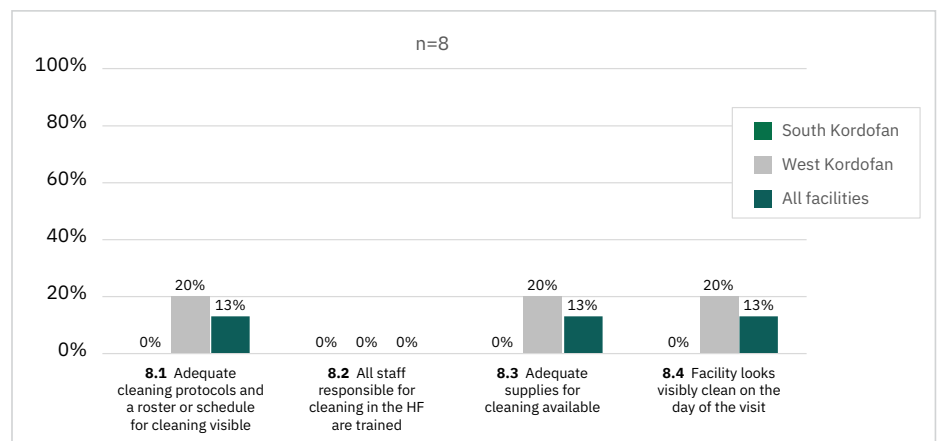


FIGURE 19. Percent of health facilities achieving each sub-domain for environmental cleaning

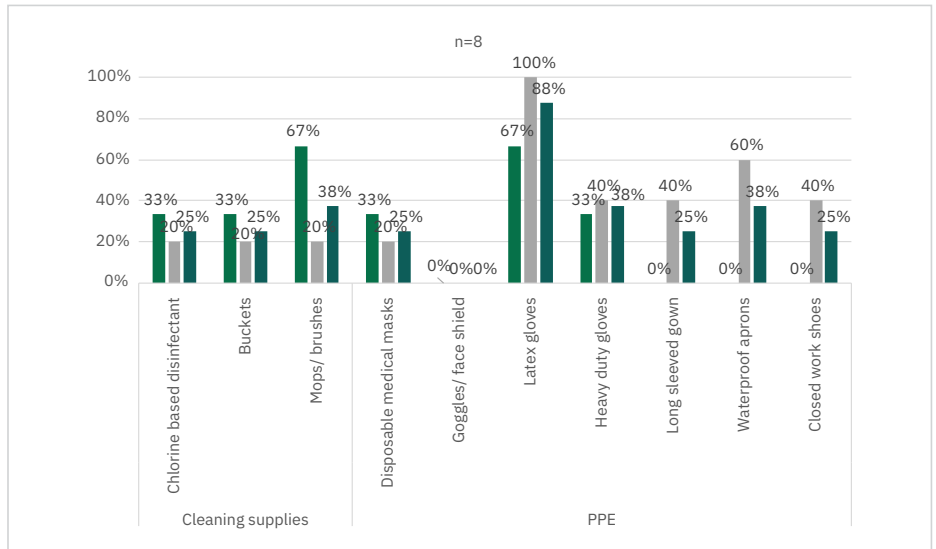


FIGURE 20. Percent of health facilities with essential personal protection and environmental cleaning supplies in stock

Priority actions needed to improve environmental cleaning

- Print and provide cleaning protocols per MOH standards
- Train relevant staff at all facilities on cleaning protocols
- Further assess why essential cleaning supplies are not in place in the majority of facilities via a WASH FIT assessment and agree plan with government counterparts to address this gap sustainably.
- Work with SMOH and Locality health authorities to ensure staff have adequate personal protective equipment (PPE)

4.2.9 Standard Precautions

The average score for standard precautions was low (25%). Again, apart from Elnahoud Hospital (80%), health facilities scored low, very low or zero (Figure 22). While the majority of facilities (63%) had guidelines on standard precaution procedures in place, none (0%) were safely segregating waste in the main consultation area (infectious waste and sharps each in their own bins); only two (25%) were safely treating/ disposing of sharps and infection waste; two (25%) had essential equipment for sterilisation; and one (13%) had the essential IPC supplies available (Figure 23).

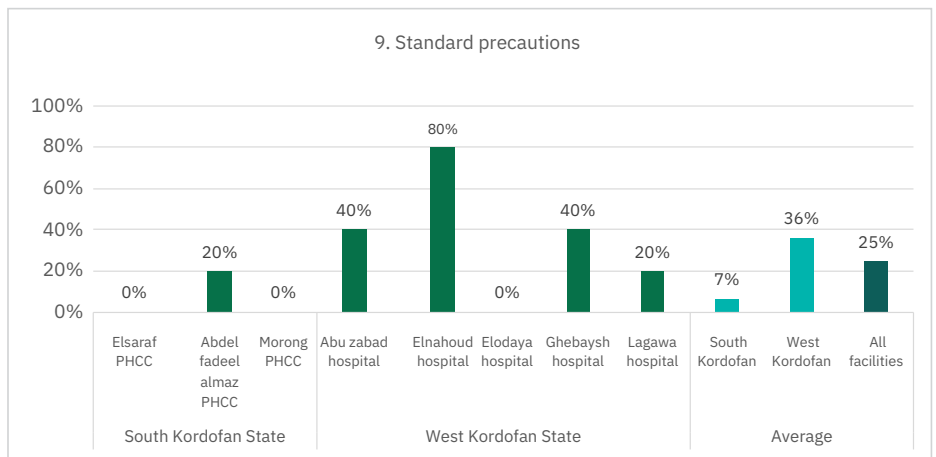


FIGURE 21. Percent score for standard precautions domain: by facility

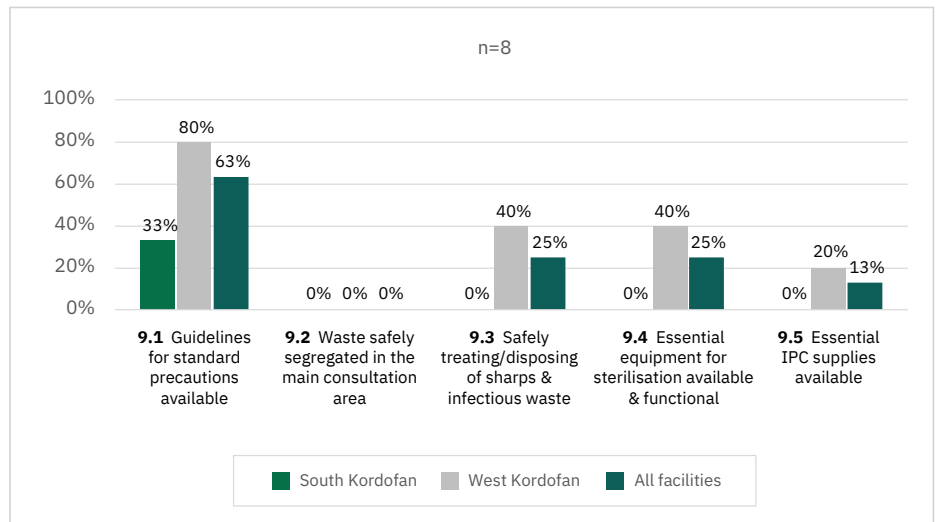


FIGURE 22. Percent of health facilities achieving each sub-domain for standard precautions

Priority actions needed to improve standard precautions

- Print and provide FMOH guidelines/ protocols for standard precautions to health facilities where they are not available.
- Conduct a WASHFIT assessment to further assess the gaps and specific actions to improve standard precaution across all health facilities, with particular focus on safe waste disposal and sterilisation equipment and its management (for essential IPC supplies, see Environmental Cleaning section above).

4.2.10 Child Health Services

Child Health Services scored low (30%) and there was marked differences across facilities. Data was only available for five of the eight health facilities (Abu zabad, Ghebayish and Lagawa hospitals are missing). Elnhoud (75%) and Elodaya Hospital (50%) had very good and good scores, but the three South Kordofan PHCCs scored very low (Figure 24). Health facilities performed poorly across all four sub-domains, with a small percentage (40%) having at least one staff trained on IMCI; the same portion (40%) actually having the IMCI guide present; and even fewer facilities having essential child health equipment (20%) and essential child health drugs (20%) (Figure 25).

The main drugs that were not in stock on the day of the survey were Zinc-sulphate tablets (29% of facilities had in stock), Cotrimoxizole syrup/ suspension (43%), Paracetamol syrup/ suspension (43%), and Amoxicillin syrup/ suspension/ dispersible tablets (29%) (Figure 26).

While half (50%) of health facilities had thermometers available on the day of the survey, other equipment were not as readily available. A small portion of health facilities had available: child growth charts (13%), infant weighing scale (38%), stethoscope (13%), and timer/ watch with second hand (13%) (Figure 27).

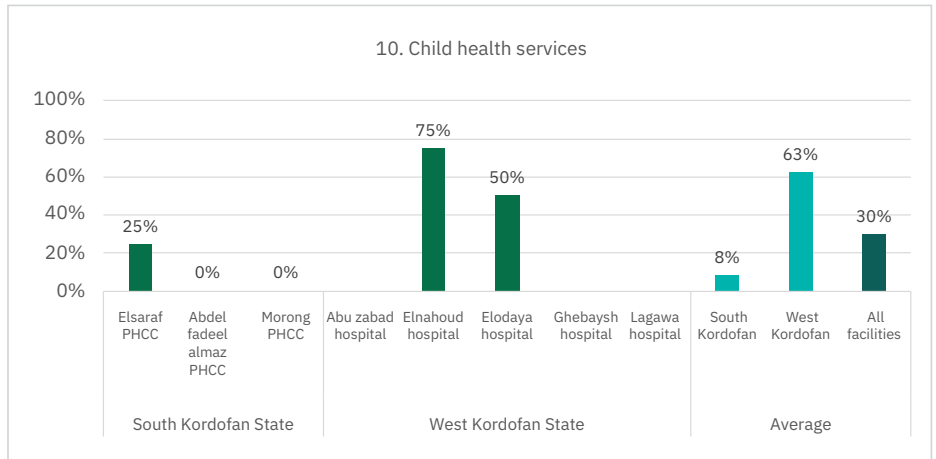


FIGURE 23. Percent score for child health service domain: by facility

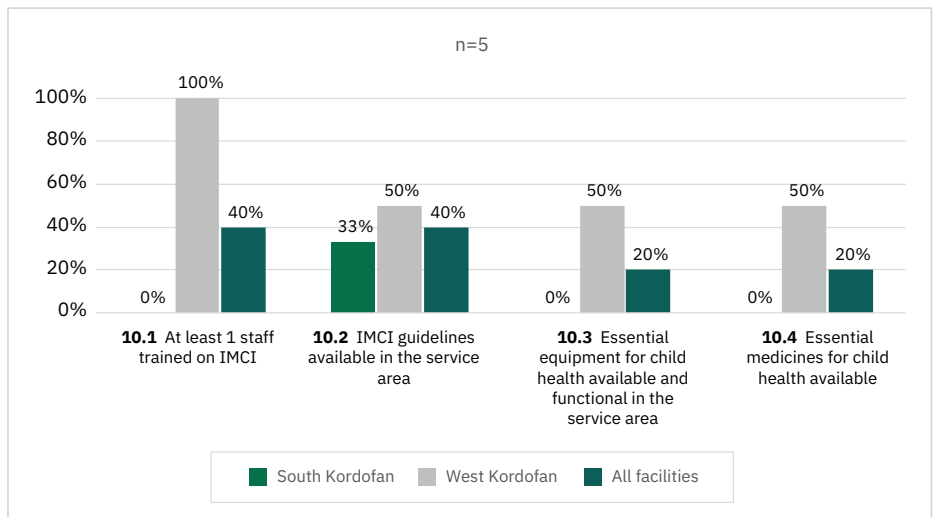


FIGURE 24. Percent of health facilities achieving each sub-domain for child health services

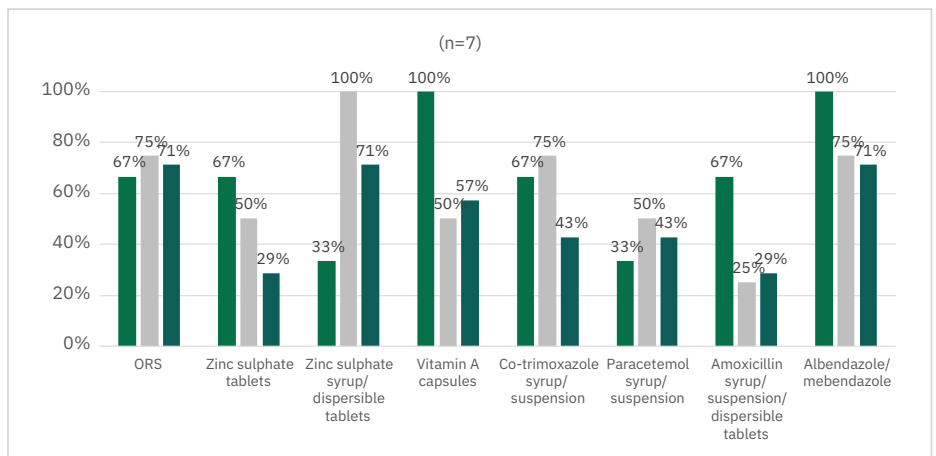


FIGURE 25. Percent of health facilities with each essential child health medicine in stock on the day of the survey

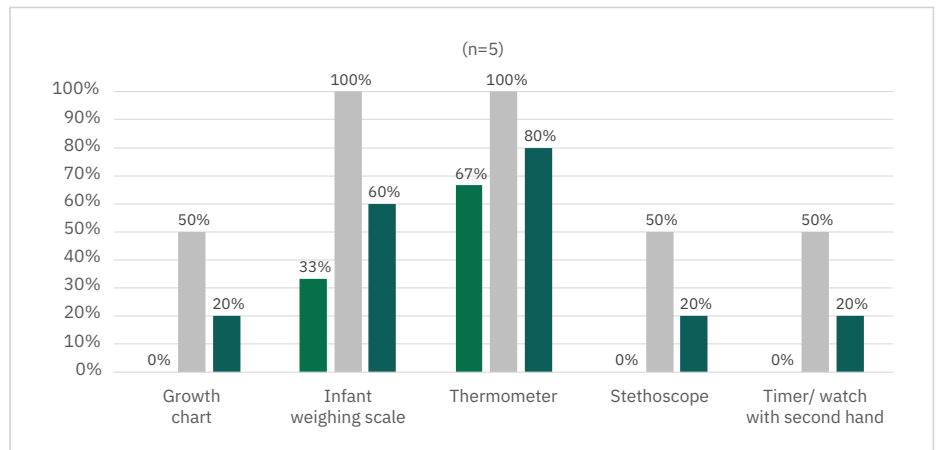


FIGURE 26. Percent of health facilities with each essential child health equipment in stock on the day

Priority actions needed to improve child health services

- Train and mentor health facility staff on IMCI per the national guideline and curriculum.
- Print and provide FMOH IMCI protocols to all facilities who require.
- Conduct joint assessment with SMOH and Locality health authorities further identify bottlenecks in the supply chain for essential child health drugs and develop a strategy to address them with all partners.
- Advocate with UNICEF and National Medical Supplies Fund (NMSF) to ensure all essential child health drugs and equipment are available at all facilities, particularly antibiotics and paracetamol and vitamin A capsules and essential equipment, particularly stethoscope and timer/ watch with second hand.
- Print and provide child growth charts for monthly growth monitoring and promotion.

4.2.11 Child Immunisation Services

Child Immunisation Services scored fair/ to moderate (46%), with most facilities scoring 25% or 50% (Figure 28). Data was not available for two health facilities (Alsaraf PHCC and Elnhoud Hospital). While the expectation is that all facilities should have the capacity to store vaccines and deliver EPI services, the digital questionnaire had an error that only collected information on vaccines available from those who reported that they ‘regularly stored vaccines. Another issue was that the questionnaire did not ask about two of the essential EPI vaccines – yellow fever and meningococcal. Both of these issues will be fixed in the tool for endline.

All six facilities (100%) had a staff member who had been trained on giving vaccinations (Figure 29). However, only one (Elodaya Hospital, representing 17%) had the EPI guidelines and essential vaccination cards available. None of the facilities (0%) had all the essential vaccination equipment available and functioning (fridge, temperatures recorded and correct, cold packs, vaccine carrier, auto-syringes, sharps box in vaccine service area). However, all six (100%) had all essential vaccines (excluding yellow fever and meningococcal vaccines which were not assessed) (Figure 30). All six also reported having a fridge but management of its temperature does not appear to be sufficient.

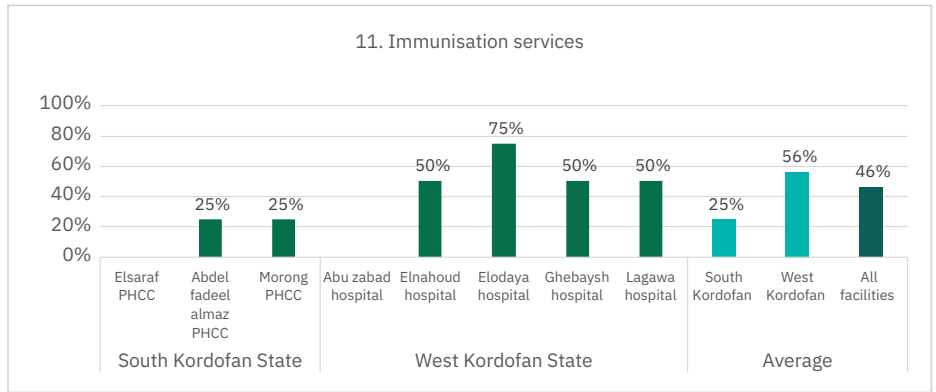


FIGURE 27. Percent of health facilities achieving each of the three sub-domains for child immunisation Services

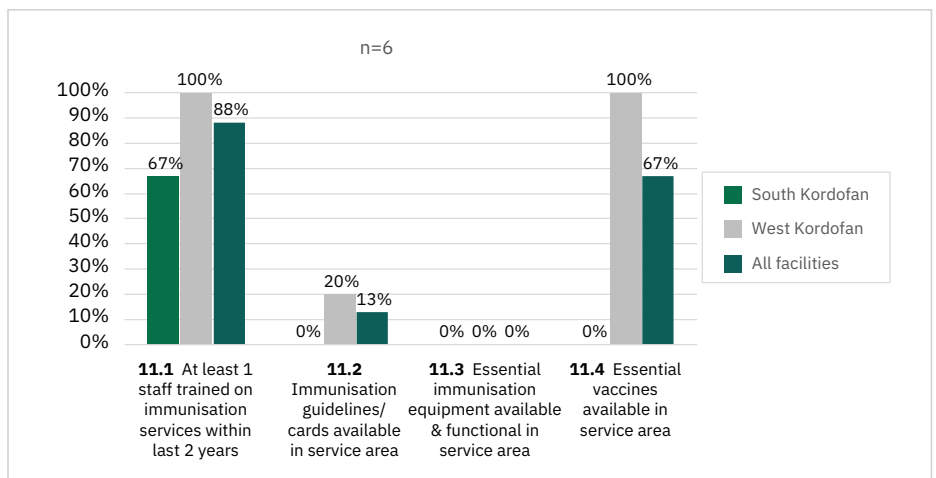


FIGURE 28. Percent score for child immunisation services domain

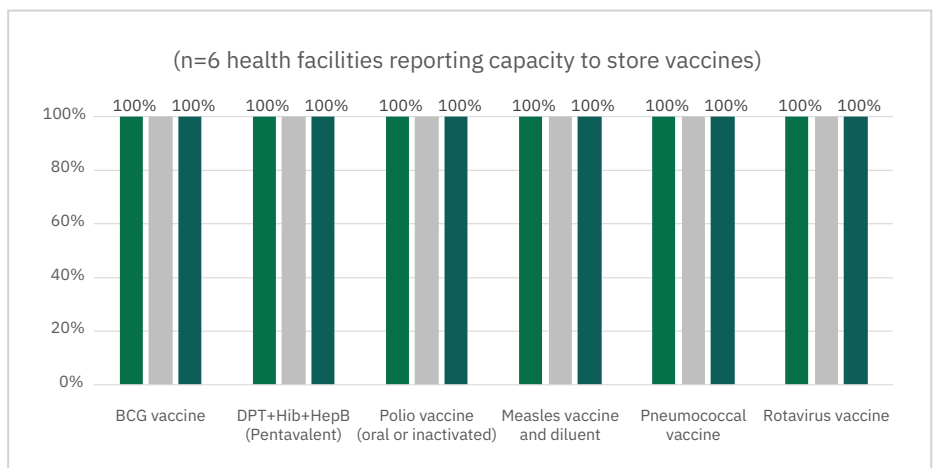


FIGURE 29. Percent of health facilities with each essential child vaccines in stock on the day of the survey

Priority actions needed to improve child immunisation services

- Train health facility staff and community vaccinators on EPI at Alsaraf PHCC and other facilities as needed
- Print and provide EPI protocols, posters, vaccination cards where required

- Conduct further assessment of immunization equipment, maintenance and training on its used required with relevant partners
- Further assess and address need for cold chain and essential immunisation equipment as this assessment found only six health facilities reporting they regularly store vaccines

4.2.12 Nutrition Services

The average score for nutrition services was relatively good (60%). Nutrition was one of the higher scoring domains and scores were fairly consistent across the eight facilities (Figure 31). Strangely, Alsaraf PHCC and Elnhoud Hospital scored the same (40%) and the lowest. RUTF was available at a large majority of health facilities (88%) on the day of the assessment and most (88%) said there were linkages with community-based health workers for screening, referral and nutrition support (Figure 32). More than half (63%) had at least one staff trained on nutrition services and half (50%) had the essential nutrition equipment in the service area. The essential nutrition equipment most often missing was an adult MUAC tape (63% of facilities had one) (Figure 33).

The poorest performing sub-domain was availability of nutrition guidelines and job aids. While a good majority had CMAM guidelines (88%) and CMAM related job aids, few (25%) had IYCF guidelines or IYCF counselling cards (38%) (Figure 34, guideline data not shown).

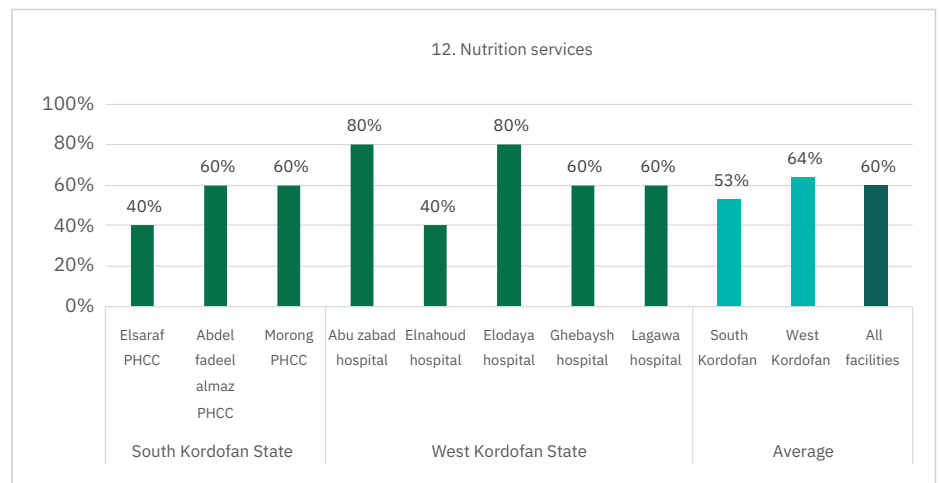


FIGURE 30. Percent score for nutrition services domain: by facility

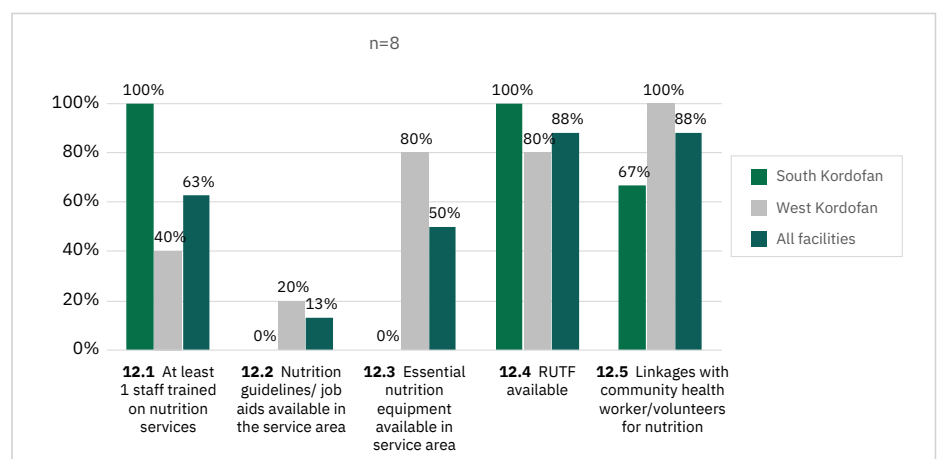


FIGURE 31. Percent of health facilities achieving each of the three sub-domains for nutrition services

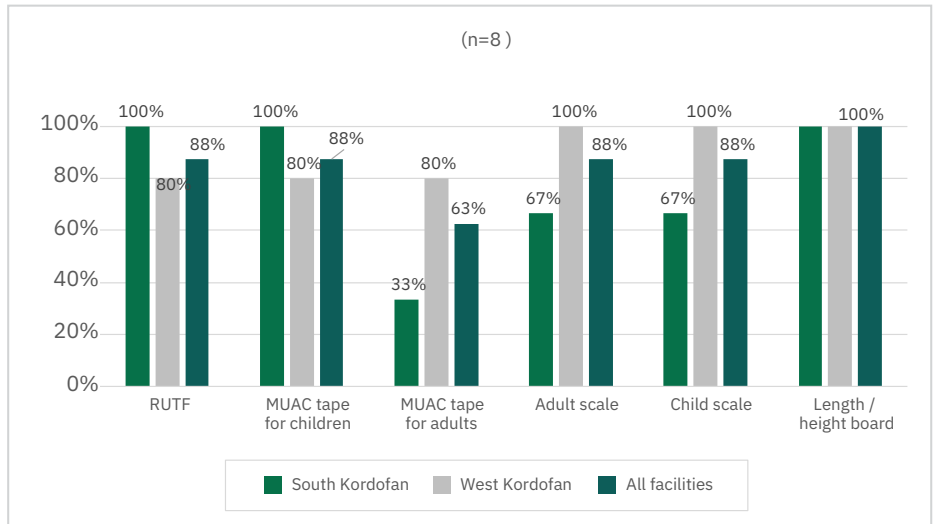


FIGURE 32. Percent of health facilities with RUTF and essential nutrition supplies in stock on the day of the survey



FIGURE 33. Percent of health facilities with essential nutrition job aids in stock on the day of the survey

Priority actions needed to improve nutrition services

- Conduct refresher training on CMAM for staff at all health facilities that did not have at least one staff trained on the day of the survey
- Print and provide national IYCF guidelines and IYCF counselling cards to all health facilities that are missing them
- Conduct more thorough assessment in Alsaraf and Elnhoud Hospital to understand the reasons for low scores (particularly, why Elnhoud hospital was the only facility to have no RUTF and also had no staff trained and no CMAM Guidelines)
- Provide adult MUAC bands to those health facilities lacking them

4.2.13 Antenatal Services

Antenatal services scored low (34%), and apart from Elnhoud hospital, the facilities scored low (40%) or very low (20%) or zero (Figure 35). More than

half of the facilities (57%) had at least one staff trained on antenatal services; roughly a third (29%) had essential antenatal guidelines available; and half (50%) had essential antenatal diagnostic equipment available (urine dipstick protein test and haemoglobin test) (Figure 36). However, only Elnahoud Hospital had essential equipment (to measure blood pressure) and all the essential antenatal drugs.

While most facilities (88%) had tetanus toxoid vaccine available for pregnant women, less than half (43%) had iron and folate tablets or a combined iron-folate tablet in stock, and only Elnahoud Hospital had Sulfadoxine-Pyrimethamine/ Fansidar for intermittent preventive treatment in pregnancy (IPTp) for malaria (Figure 37).

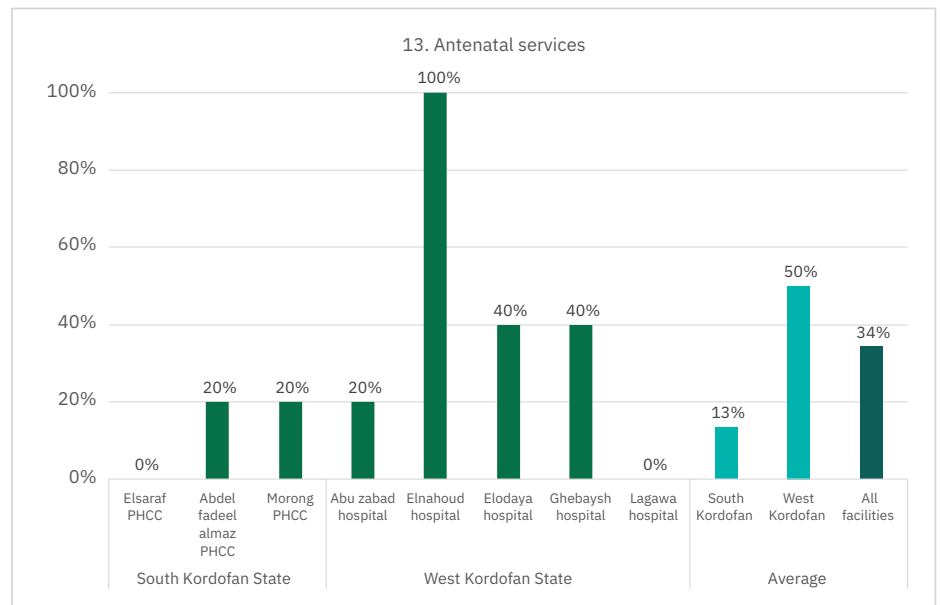


FIGURE 34. Percent score for antenatal services domain

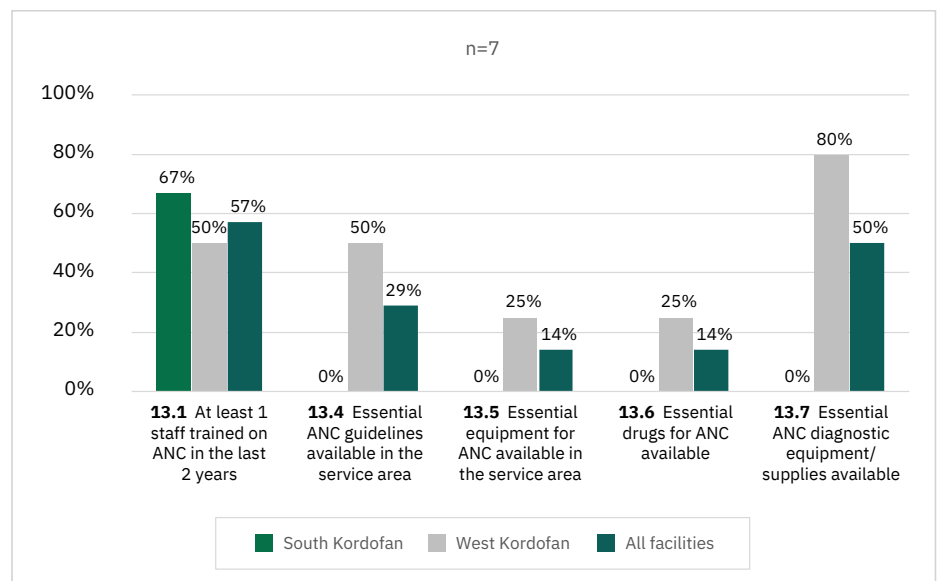


FIGURE 35. Percent of health facilities achieving each of the three sub-domains for antenatal services

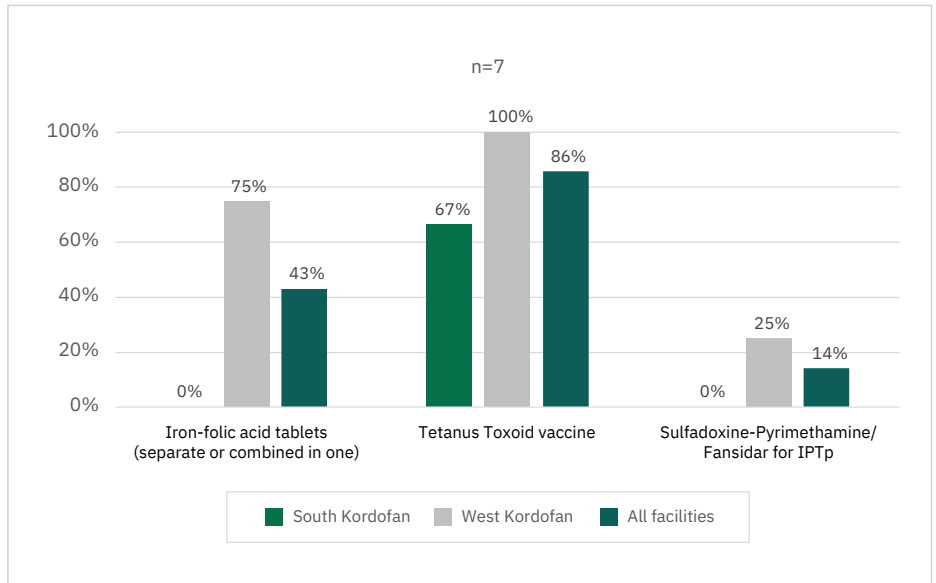


FIGURE 36. Percent of health facilities with each essential antenatal medicine in stock on the day of the survey

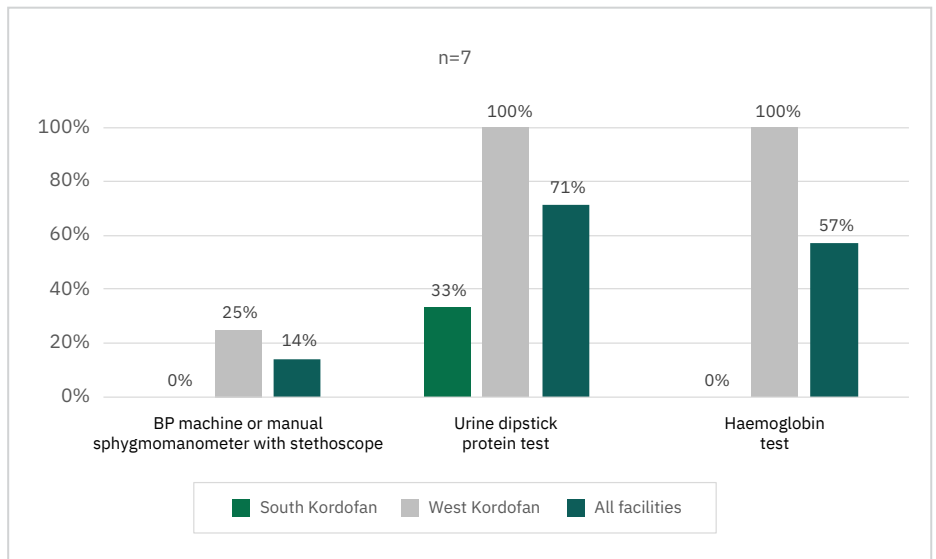


FIGURE 37. Percent of health facilities with each essential antenatal equipment and diagnostic tests in place on the day of the survey

Priority actions needed to improve antenatal services

- Support training of midwives on antenatal services per FMOH guidelines and curricula
- Print and provide antenatal guidelines to all those who require them
- Provide clean delivery kits to midwives for deliveries in facilities
- Engage SMOH, Locality health authorities and other stakeholders, particularly UNFPA to access resources to strengthen reproductive health services (including antenatal care) and ensure adequate drugs and equipment. Priorities include provision of iron/folate tablets and sulfadoxine-Pyrimethamine for intermittent preventive treatment for pregnant women as well as essential equipment

4.2.14 COVID-19 Preparedness & Response Capacity

There appears to be virtually no capacity for COVID-19 preparedness and response according to the criteria developed for this assessment: all facilities scored zero across all four of the sub-domains.

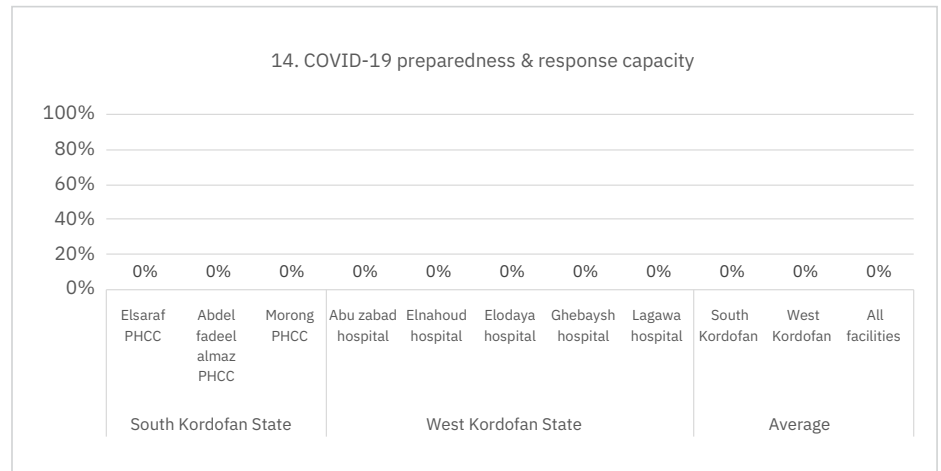


FIGURE 38. Percent score for COVID-19 preparedness & response capacity domain

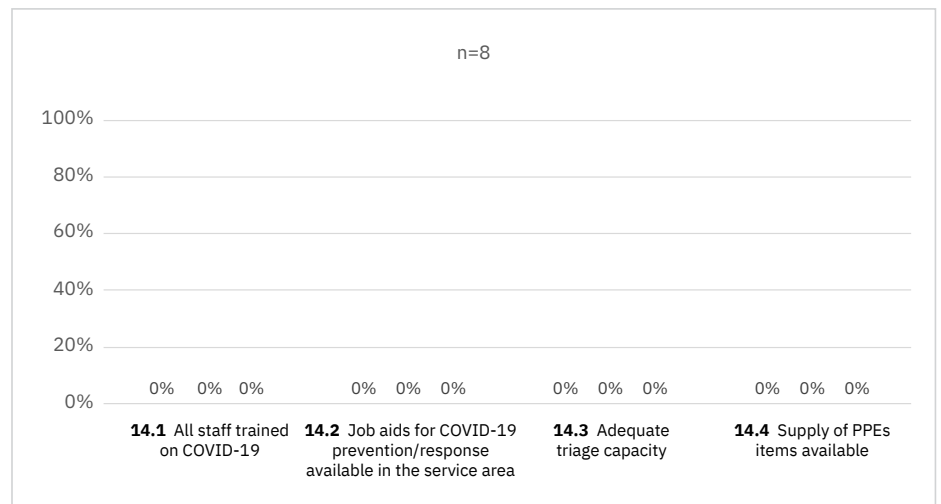


FIGURE 39. Percent of health facilities achieving each of the three sub-domains for COVID-19 preparedness & response

Priority actions needed to improve COVID-19 preparedness & response capacity

- More in-depth assessment as to why there are no staff trained, no apparent job aids and no triage capacity for COVID-19. (For PPEs, see Environmental Cleaning section)

5. Summary of priority actions and recommendations

DOMAIN	PRIORITY ACTIONS
1. Staffing	<ol style="list-style-type: none"> 1. Work directly with the Locality Health Service Departments and SMOH and the Health Directors of each facility to understand the extremely low staffing levels observed at Alsaraf and Morong PHCCs and identify solutions. 2. Work with Locality Health Health Service Departments and SMOH to deploy more professional staff at health facilities generally. 3. Harmonise and provide clarity on incentives being provided to SMOH staff by partners 4. Share findings with the Health Sector for priority planning for health resource.
2. HMIS	<ol style="list-style-type: none"> 5. Ensure Statistics Officers are visiting and providing support to all facilities, prioritising Alsaraf, Abuzabad, Elodaya and Ghebayish facilities 6. Develop and carry out a capacity building plan including formal and on-the-job training focused on HMIS with State and Locality Health counterparts. 7. Support all health facilities to digitalise the HMIS data collection/ entry, providing essential equipment for this as needed. 8. Advocate for Android based DHIS 2 roll out in the facilities having challenges with HMIS for South and West Kordofan, in line with the FMOH's initiative in this area.
3. Management & Supervision	<ol style="list-style-type: none"> 9. Support communities and health staff to form and train community health committees for all eight health facility catchment areas per FMOH guidelines. 10. Further assess the status of internal management committees in each of the eight facilities with the Locality Health authorities and SMOH vis-à-vis government guidelines. 11. Promote more frequent supportive supervision visits by SMOH/ LHSD to health facilities.
4. General Infrastructure	<ol style="list-style-type: none"> 12. Further assess Elsarraf PHCC regarding its power supply and potential options for support with the Locality Health authorities. 13. Support to health facilities on minor repair of ambulances where appropriate. 14. Explore possible community-supported transport options for referrals, for example 'donkey ambulances' or three-wheel vehicles ('tuktuk') or rotating transport funds. 15. Further assess gaps and options for improved communication equipment/ credit with the LHSD
5. Water infrastructure	<ol style="list-style-type: none"> 16. Carry out WASH Fit Assessment and response in all HFs with MoH and Health Facility staff to refine key priority areas for improvement, especially management of existing water syst 17. Engage with Water and Environmental Sanitation (WES) Department to identify options for improved water sources in facilities where they are lacking (either non-existent or not functioning on day of survey), particularly Alsaraf, Abdelfadel almaz and Morong PHCCs in South Kordofan, and ensure their engagement in the WASHFIT analysis 18. Consider water trucking if needed.

DOMAIN	PRIORITY ACTIONS
6. Sanitation infrastructure	<ul style="list-style-type: none"> 19. Agree an immediate action plan with the LHSD and SMOH to address the complete lack of functional toilets in 3 health facilities (Abdel fadeel almaz PHCC, Morong PHCC and Ghebaish hospital) and the reasons they are not functional. 20. Carry out Wash-FIT assessment and response in all HF's with MoH and Health Facility staff to refine key priority areas for improvements, particularly improved management of sanitation facilities based on problems to date 21. Support for construction of gender segregated VIP latrines, possibly via linkages with CLTS or food-for-assets programme.
7. Hygiene infrastructure	<ul style="list-style-type: none"> 22. Carry out WASH-FIT Assessment in all HF's with MoH and health facility staff to further define key priority areas for improvements, particularly how to better manage hand washing facilities and procurement of hygiene materials in the future, particularly in those that do have accessible water (for some quick wins). 23. Support construction of handwashing stations and agree and train who will manage them, including ensuring water and soap is available at all times.
8. Environmental cleaning	<ul style="list-style-type: none"> 24. Print and provide cleaning protocols per MOH standards 25. Train relevant staff at all facilities on cleaning protocols 26. Further assess why essential cleaning supplies are not in place in the majority of facilities via a WASH FIT assessment and agree plan with government counterparts to provide them. 27. Work with SMOH and Locality health authorities to ensure staff have adequate personal protective equipment (PPE)
9. Standard precautions	<ul style="list-style-type: none"> 28. Print and provide FMOH guidelines/ protocols for standard precautions to health facilities where they are not available. 29. Conduct a WASHFIT assessment to further assess the gaps and specific actions to improve standard precaution across all health facilities, with particular focus on safe waste disposal and sterilisation equipment and its management (for essential IPC supplies, see Environmental Cleaning section above)
10. Child health service	<ul style="list-style-type: none"> 30. Train and mentor health facility staff on IMCI per the national guideline and curriculum. 31. Print and provide FMOH IMCI protocols to all facilities who require 32. Conduct joint assessment with SMOH and Locality health authorities further identify bottlenecks in the supply chain for essential child health drugs and develop a strategy to address them with all partners. 33. Advocate with UNICEF and National Medical Supplies Fund (NMSF) to ensure all essential child health drugs and equipment are available at all facilities, particularly antibiotics and paracetamol and vitamin A capsules and essential equipment, particularly stethoscope and timer/ watch with second hand 34. Print and provide child growth charts for monthly growth monitoring and promotion.

DOMAIN	PRIORITY ACTIONS
11. Immunisation service	<ul style="list-style-type: none"> 35. Train health facility staff and community vaccinators on EPI at Alsaraf and other facilities as needed. 36. Print and provide EPI protocols, posters, vaccination cards where required 37. Conduct further assessment of immunization equipment, maintenance and training on its used required with relevant partners 38. Further assess and address need for cold chain and essential immunisation equipment as this assessment found only six health facilities reporting they regularly store vaccines.
12. Nutrition service	<ul style="list-style-type: none"> 39. Conduct refresher training on CMAM for staff at all health facilities that did not have at least one staff trained on the day of the survey 40. Print and provide national IYCF guidelines and IYCF counselling cards to all health facilities that are missing them. 41. Conduct more thorough assessment in Alsaraf PHCC and Elnhoud Hospital to understand the reasons for low scores (particularly, why Elnhoud hospital was the only facility to have no RUTF and also had no staff trained and no CMAM Guidelines) 42. Provide adult MUAC bands to those health facilities lacking them
13. Antenatal service	<ul style="list-style-type: none"> 43. Support training of midwives on antenatal services per FMOH guidelines and curricula 44. Print and provide antenatal guidelines to all those who require them 45. Provide clean delivery kits to midwives for deliveries in facilities 46. Engage SMOH, Locality health authorities and other stakeholders, particularly UNFPA to access resources to strengthen reproductive health services (including antenatal care) and ensure adequate drugs and equipment. Priorities include provision of iron/folate tablets and sulfadoxine-Pyrimethamine for intermittent preventive treatment for pregnant women as well as essential equipment
14. COVID-19 preparedness & response	<ul style="list-style-type: none"> 47. More in-depth assessment as to why there are no staff trained, no apparent job aids and no triage capacity for COVID-19 (For PPEs, see Environmental Cleaning section)

6. Annexes

Annex 1. Overview of HFA components and scoring

HFA COMPONENT	TOTAL NUMBER	WHAT IS IT?	HOW IS IT SCORED?	HOW SCORES CAN BE PRESENTED
Questions	107	Questions asked to the respondent for their answer (some are yes/ no, some are multiple choice) and some require the enumerator to observe something (e.g. a guideline or drug is present)	No score just Yes or No	Answers not presented - just feed into sub indicators (detailed analysis is possible but not routine)
Sub-indicators	54	1 to 8 questions per sub-indicator (varies by sub-indicator)	Either a 1 or a 0. The sub-indicator score is 1 if all the questions included in it are 'yes'. Otherwise, the score is 0 (with a few exceptions)	% of health facilities achieving '1' (a pass) for each sub-indicator
Modules/ Domains	14	1 to 5 sub-indicators per domain (varies by module) Each sub-indicator reflects a different aspect of the Domain	Two scores: <ul style="list-style-type: none"> The raw score is the sum of the scores for the sub-indicators included in that Domain (so between 1 and 5) The % score is the raw score divided by the total possible score for that module/ domain (1 – 5) 	<ul style="list-style-type: none"> Score per facility (raw only) Average score for all health facilities (raw and/or %) Average score for specific health facilities or Districts (raw and/or %)
Overall	-	Includes all 14 modules/ domains / 54 indicators/ 107 questions	<ul style="list-style-type: none"> The raw score is the sum of the scores of all 54 sub-indicators The % score is the raw score divided by 54 	<ul style="list-style-type: none"> Score per health facility (raw and/or %) Average score for all health facilities (raw and/or %) Average score for individual health facilities or Districts (raw and/or %)

Annex 2. Raw scores: by domain, by facility and average for all facilities

DOMAIN/ MODULE	TOTAL POSSIBLE SCORE	SOUTH KORDOFAN STATE			WEST KORDOFAN STATE					AVERAGE ALL FACILITIES
		Elleri West Locality	Talodi Locality	Gadeer Locality	Abuzabad Locality	Elnhoud Locality	Elodaya Locality	Ghebayish Locality	Lagawa Locality	
		Alsaraf PHCC	Abdel fadeelalmaz PHCC	Morong PHCC	Abu Zabad Hospital	Elnhoud Hospital	Elodaya Hospital	Ghebaish Hospital	Lagawa Hospital	
1. Staffing	3	0	2	0	2	3	3	3	3	2.0
2. HMIS	2	0	1	1	0	1	0	0	2	0.6
3. Management & supervision	3	1	1	2	0	1	0	0	1	0.8
4. General infrastructure	3	0	1	1	2	3	1	1	2	1.4
5. Water infrastructure	4	0	0	0	4	3	1	3	3	1.8
6. Sanitation infrastructure	5	1	0	0	0	4	0	0	1	0.8
7. Hygiene infrastructure	2	0	0	0	0	1	0	0	0	0.1
8. Environmental cleaning	4	0	0	0	0	2	1	0	0	0.4
9. Standard precautions	5	0	1	0	2	4	0	2	1	1.3
10. Child health service availability & readiness	5	1	0	0	Missing	4	2	Missing	Missing	0.9
11. Immunisation service availability & readiness	4	0	1	1	1	2	2	2	2	1.4
12. Nutrition service availability & readiness	5	2	3	3	4	2	4	3	3	3.0
13. Antenatal service availability & readiness	5	0	1	1	1	5	2	2	Missing	1.5
14. COVID-19 preparedness & response capacity	4	0	0	0	0	0	0	0	0	0.0
OVERALL	54	5	11	9	16	35	16	16	18	15.8

Annex 3. Percentage scores: by domain, by facility and average for all facilities

DOMAIN/ MODULE	SOUTH KORDOFAN STATE			WEST KORDOFAN STATE					AVERAGE ALL FACILITIES
	Elleri West Locality	Talodi Locality	Gadeer Locality	Abu zabad Locality	Elnhoud Locality	Elodaya Locality	Ghebayish Locality	Lagawa Locality	
	Elsaraf PHCC	Abdel fadeel almaz PHCC	Morong PHCC	Abu zabad hospital	Elnahoud hospital	Elodaya hospital	Ghebaysh hospital	Lagawa hospital	
1. Staffing	0%	67%	0%	67%	100%	100%	100%	100%	67%
2. HMIS	0%	50%	50%	0%	50%	0%	0%	100%	31%
3. Management & supervision	33%	33%	67%	0%	33%	0%	0%	33%	25%
4. General infrastructure	0%	33%	33%	67%	100%	33%	33%	67%	46%
5. Water infrastructure	0%	0%	0%	100%	75%	25%	75%	75%	44%
6. Sanitation infrastructure	20%	0%	0%	0%	80%	0%	0%	20%	15%
7. Hygiene infrastructure	0%	0%	0%	0%	50%	0%	0%	0%	6%
8. Environmental cleaning	0%	0%	0%	0%	50%	25%	0%	0%	9%
9. Standard precautions	0%	20%	0%	40%	80%	0%	40%	20%	25%
10. Child health services	25%	0%	0%	Missing	75%	50%	Missing	Missing	30%
11. Immunisation services	Missing	25%	25%	Missing	50%	75%	50%	50%	46%
12. Nutrition services	40%	60%	60%	80%	40%	80%	60%	60%	60%
13. Antenatal services	0%	20%	20%	20%	100%	40%	40%	Missing	34%
14. COVID-19 preparedness & response capacity	0%	0%	0%	0%	0%	0%	0%	0%	0%
OVERALL SCORE	9%	21%	17%	30%	64%	32%	30%	33%	30%

* The Child Health Services Domain was designed with a total of 5 possible points but due to an error in the coding, the diagnostic testing capacity sub-domain has been removed from the analysis (see limitations), meaning the total possible sub-domains/ points became four and the total possible points actually 53.

Annex 4. Staffing norms by health facility according to national policy

SUDAN	LOCALITY HOSPITAL		PRIMARY HEALTH CARE CENTRE (PHCC)	
Professional	Family medicine specialist or general practitioner	4	Family medicine specialist or general practitioner	1
	Midwife	4	Midwife	4
	Nurse	2		
	Health Visitor	1		
Professional Total		11		5
Associate	Pharmacy Technician	3	Community Health Visitor	1
	Fortification Technician	2	Laboratory Technician	1
	Nutrition worker	3	Nutrition and Vaccination Staff	1
			Pharmacy Technician	1
			Social researcher	1
			Medical Assistant	1
Associate Total		8		6
Support	Statistical Officer	2	Nursing Technician	3
	Administrator	1	Statistical Officer	1
Support Total		3		4
TOTAL		22		15

Annex 5. Sub-indicators and questions for each module

DOMAIN & TOTAL POSSIBLE SCORE	SUB-DOMAIN (TOTAL 54)	SCORING: SUB-DOMAIN	QUESTIONS
1. STAFFING Total sub-indicators with 'Yes' (out of 3)	1.1 HF has at least half of the expected health professional staff (per national policy) present on day of visit	Yes (1) No (0)	Note: the total number expected of each type of staff according to each country's national health policy will be entered into the DDG form/ formulas before the assessment starts (HQ advisers will help you using national policies). 1. How many PROFESSIONAL STAFF are present at this HF today? 2. How many ASSOCIATE STAFF are present at this HF today? 3. How many SUPPORT STAFF are present at this HF today?
	1.2 HF has at least half of the expected health associate staff (per national policy) present on day of visit	Yes (1) No (0)	
	1.3 HF has at least half the expected support staff (per national policy) present on day of visit	Yes (1) No (0)	
2. HEALTH MANAGEMENT INFORMATION SYSTEM Total sub-indicators with 'Yes' (out of 2)	2.1 HF has a health information management system in place	Yes (1) No (0)	4. Does this facility have a standard national information management system (e.g., HMIS) in place?
	2.2 HF has evidence of using health information management data	Yes (1) No (0)	5. Does this facility regularly compile any report on health services information for the standard national information management system (observe)? 6. How frequently are these reports compiled? 7. Are there any reports on meetings that have been held to review data from the reports (observe)? 8. Are there any graphs, charts, or posters that are made from data routinely collected at this facility that is displayed for your and/or client information & use (observe)?
3. MANAGEMENT AND SUPERVISION Total sub-indicators with 'Yes' (out of 3)	3.1 HF has an internal health facility management committee in place and a meeting was held during the previous three months	Yes (1) No (0)	9. Does this facility have an Internal Health Facility Management Committee? 10. Does this facility have routine staff meetings to discuss health information and other issues? 11. When was the last meeting held? 12. Can I see the records from the last meeting (observe)?
	3.2 HF has a community health management committee in place and a meeting was held during the previous 3 months	Yes (1) No (0)	13. Does the HF have a Community Health Management Committee? 14. Does the community health management committee organise regular meetings that include both facility staff and community members? 15. When was the last meeting held? 16. Can I see the records from the last meeting (observe)?
	3.3 HF received external supervision at least once in the last 3 months	Yes (1) No (0)	17. Do you receive technical support or supervision in your work? 18. When was the last time this facility received a supervision visit from the higher level (DHMT or other)? 19. During the supervision visit, what did the supervisor assess? At least 1 of the following: a) Check records or reports b) Observe your work c) provide feedback either positive or negative d) Update on administrative or technical e) discuss problems you have encountered f) Checked drug supply

DOMAIN & TOTAL POSSIBLE SCORE	SUB-DOMAIN (TOTAL 54)	SCORING: SUB-DOMAIN	QUESTIONS
4. GENERAL INFRA-STRUCTURE Total sub-indicators with 'Yes' (out of 3)	4.1 HF has a functioning power supply on day of the survey	Yes (1) No (0)	20. Does your facility have electricity from any source (e.g. electricity grid, generator, solar, or other) including for stand-alone devices (EPI cold chain)? 21. Is electricity functioning now? 22. What is the facility's main source of electricity? 23. Does this facility have other sources of electricity? 24. Is the generator functional? 25. Is there fuel or a charged battery available today? 26. Is the solar system functional? (Note no observation required for above – accept the reported answer)
	4.2 HF has functioning communication equipment on day of the survey	Yes (1) No (0)	27. Does this facility have a functioning landline and/or a mobile telephone that is supported by the facility and available to call outside at all times client services is offered? 28. Does this facility have a functioning computer with access to internet or the emails? (Note no observation required for the above – accept the reported answer)
	4.3 HF has emergency transport available on day of the survey	Yes (1) No (0)	29. Does this facility have access to an ambulance or other vehicle for emergency transport for clients? 30. Is fuel for the ambulance or other emergency vehicle available today? (Note no observation required for the above – accept the reported answer)
5. WATER INFRA-STRUCTURE Total 'Yes' (out of 4)	5.1 HF's main water supply is improved and functioning on day of visit	Yes (1) No (0)	31. What is the main water supply for the facility? (Piped supply inside the building a) Piped supply outside the building b) Tube well / Borehole c) Protected dug well d) Protected spring e) Rain water f) Tanker truck g) other 32. Is water available from the main water supply at the time of the survey? (observe)
	5.2 HF's main improved and functioning water source is on the premises	Yes (1) No (0)	33. Where is the main water supply for the facility located? a) On premises b) Up to 500 m away d) 500 m away or further
	5.3 HF's main improved and functioning water source has had no disruption during the previous month	Yes (1) No (0)	34. Have you experienced any disruption to water services within the past month?
	5.4 HF's water quantity from main improved and functioning water source is sufficient for all the health facility's needs	Yes (1) No (0)	35. Is there generally enough water available to serve your needs on a daily basis for all activities, e.g. drinking, cleaning, disinfection, bathing, handwashing, etc.?

DOMAIN & TOTAL POSSIBLE SCORE	SUB-DOMAIN (TOTAL 54)	SCORING: SUB-DOMAIN	QUESTIONS
6. SANITATION INFRA-STRUCTURE Total 'Yes' (out of 5)	6.1 HF has at least one improved toilet that is useable (accessible, private and functional)	Yes (1) No (0)	36. What type of toilets/latrines are at the facility for patients? a) flush / Pour-flush toilet to sewer connection b) flush / Pour-flush toilet to tank or pit c) Pit latrine with slab d) composting toilet (observe) 37. How many toilets/latrines of this type are there in the facility? (observe) 38. How many of these are accessible (with doors unlocked or with keys available all the time)? (observe) 39. How many of these are private (with doors that can be locked from the inside without any large gaps/holes in the structure)? (observe) 40. How many of these are functional (the pit hole is not blocked, water is available for flush/pour flush, and there are no cracks or leaks in the toilet structure)? (observe)
	6.2 HF has at least 4 improved toilets that are usable (accessible, private and functional) and cover the needs of staff and patients	Yes (1) No (0)	41. Uses numbers given in response above plus: 42. In your opinion, is this number of toilets/latrines usually sufficient to cover the needs of the staff and the patients?
	6.3 Has at least 1 improved usable toilet for female patients which has MHM facilities	Yes (1) No (0)	43. Is there at least 1 improved toilet/ latrine that is dedicated to females? (observe) 44. Does it have MHM items in place (covered bin, and/or water and soap)? 45. Is this female toilet accessible, private and usable? (observe)
	6.4 HF has at least 1 improved useable toilet dedicated to staff.	Yes (1) No (0)	46. Is there at least 1 improved toilet/latrine that is dedicated to staff? (observe) 47. Is this staff toilet accessible, private and usable? (observe)
	6.5 HF has at least 1 improved useable toilet that is accessible to people with limited mobility	Yes (1) No (0)	48. Is there at least 1 improved toilet/latrine that is accessible for people with limited mobility (without stairs or steps, has a door at least 80cm wide, has handrails for support attached to floor or sidewalls, and has a door handle and set that are within reach of people using a wheelchair or crutches/sticks) 49. Is this limited mobility toilet functional, private and usable?
7. HAND HYGIENE INFRA-STRUCTURE Total 'Yes' (out of 2)	7.1 HF has hand hygiene facilities that are available at entrance to main waiting area and child consultation room with water and soap and/or alcohol hand rub present	Yes (1) No (0)	50. Is there a functional hand-washing facility with water and soap, or alcohol-based hand rub, at the main waiting area (observe water/soap or hand rub)? 51. Is there a functional hand-washing facility with water and soap, or alcohol-based hand rub, at the main child consultation area (observe water/soap or hand rub)?
	7.2 HF has hand washing facilities available within 5 meters of all toilets with water and soap present	Yes (1) No (0)	52. Is there a handwashing facility located within 5 metres of all the toilets on the day of the survey? 53. Do all the handwashing facilities for the toilets have water and soap?

DOMAIN & TOTAL POSSIBLE SCORE	SUB-DOMAIN (TOTAL 54)	SCORING: SUB-DOMAIN	QUESTIONS
8. ENVIRONMENTAL CLEANING Total sub-indicators with 'Yes' (out of 4)	8.1 HF has adequate cleaning protocols available, and a schedule or roster for cleaning is visible	Yes (1) No (0)	54. Do any protocols for cleaning (floor, sink, spillage of blood or bodily fluid, etc.) exist and are they available (observe)? 55. Do the protocols for cleaning include step-by-step techniques for specific task, such as cleaning floor, cleaning a sink, cleaning a spillage of blood or body fluids (observe)? 56. Is there a cleaning roster or schedule specifying responsibility for cleaning tasks and frequency at which they should be performed available in the facility (observe)?
	8.2 HF has all staff responsible for cleaning in the HF trained	Yes (1) No (0)	57. Have all staff responsible for cleaning received training on how to clean in the last 2 years?
	8.3 HF has adequate supplies for cleaning available	Yes (1) No (0)	58. Do you have the following essential cleaning (observe all via stock check): a) latex gloves b) closed work shoes/ boots c) chlorine based or other disinfectant d) mops/ brushes?
	8.4 HF facility looks visibly clean	Yes (1) No (0)	59. Are floors and surfaces visibly clean (observe)?
9. STANDARD PRECAUTION Total sub-indicators with 'Yes' (out of 5)	9.1 HF guidelines for standard precautions are available	Yes (1) No (0)	60. Are guidelines for standard precautions are available in the facility today? (observe).
	9.2 HF has waste safely segregated in the main consultation area	Yes (1) No (0)	61. Are there 3 different bins available in the main consultation area that separate (1) sharp waste, (2) infectious waste and (3) non-infectious general waste (observe)? 62. Are there lids on the sharps and infectious waste bins (observe)? 63. Are all three bins colour coded or clearly labelled (observe)? 64. Is the sharps bin made of material that prevents punctures (observe)? 65. Is the infectious waste bin made of material that prevents leaks (observe)? 66. Is the infectious waste bin less than 75% full (observe)? 67. Is the normal/ non-infectious waste bin free of infectious waste or sharps (observe)?
	9.3 HF is safely treating and/ or disposing of sharps and infectious waste	Yes (1) No (0)	68. How does this facility usually treat/ dispose of infectious waste? a) Autoclaved b) Incinerated (two chamber, 850-1000 °C incinerator) c) Incinerated (other, e.g. one chamber; below 850oC, etc.) d) Burning in a protected pit e) Not treated, but buried in lined, protected pit f) Not treated, but infectious and sharp waste is collected for disposal off-site 69. How does this facility usually treat/ dispose of sharps waste?
	9.4 HF has essential equipment for sterilisation available and functional on the day of the survey	Yes (1) No (0)	70. Please tell me if the following items for processing of equipment for reuse (or sterilisation) are available and functional in the facility today (observe all): a) Electric autoclave (pressure & wet heat) or b) electric dry heat steriliser or c) electric boiler or steamer or d) non-electric autoclave plus heat source or e) pot with cover for boiling/steam plus heat source
	9.5 HF has essential infection prevention control supplies available on the day of the survey	Yes (1) No (0)	71. Please tell me if the following items for IPC are in the facility today (observe via stock check): a) latex gloves b) soap and running water or alcohol based hand rub c) single use disposable or auto-disposable syringes d) chlorine-based or other country specific disinfectant

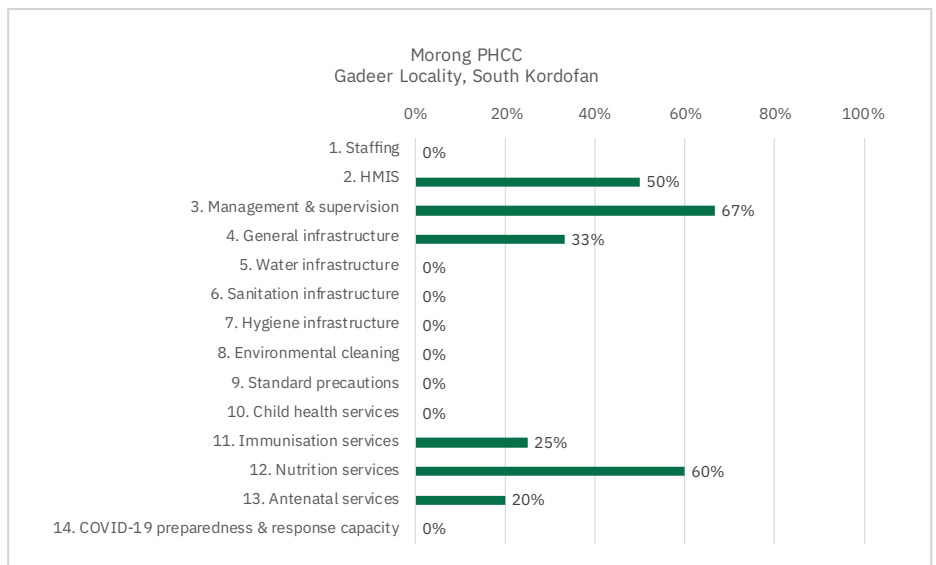
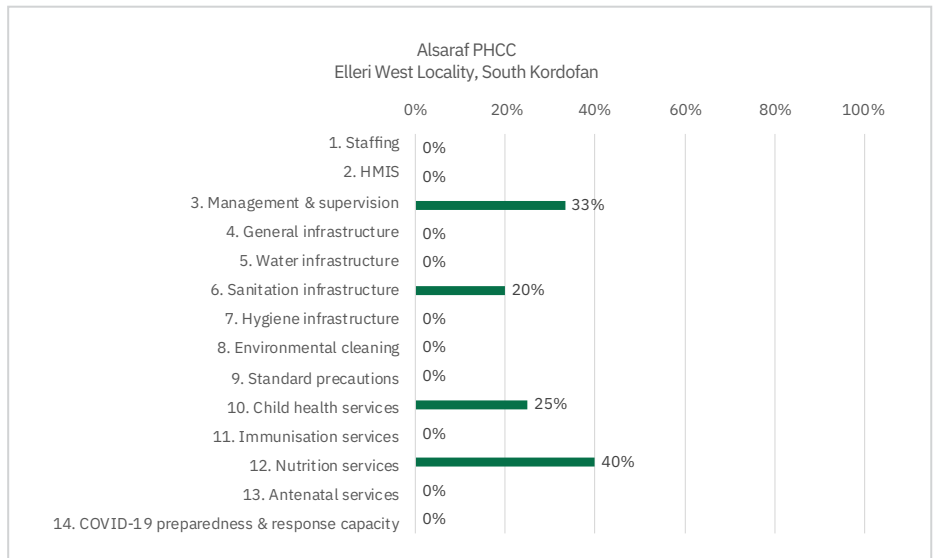
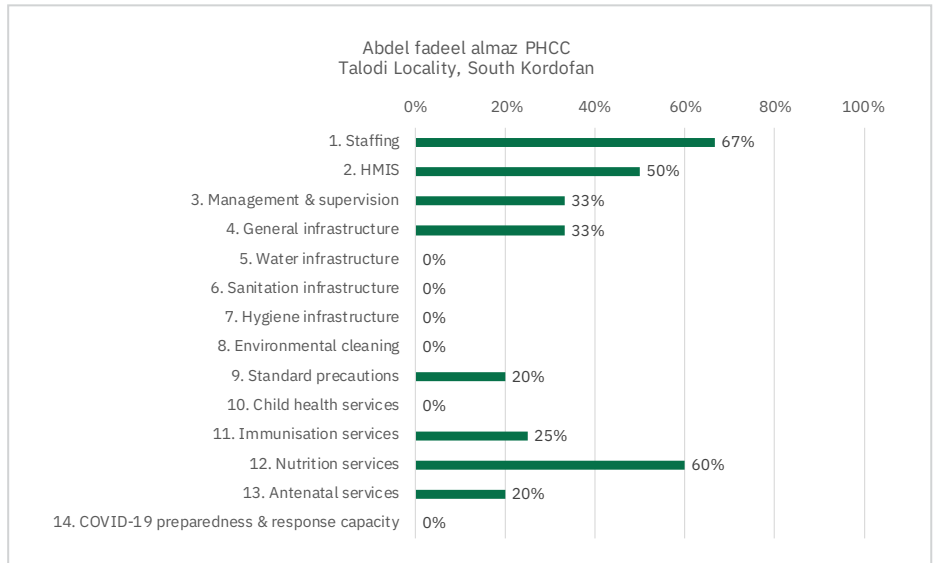
DOMAIN & TOTAL POSSIBLE SCORE	SUB-DOMAIN (TOTAL 54)	SCORING: SUB-DOMAIN	QUESTIONS
10. CHILD HEALTH SERVICE AVAILABILITY & READINESS Total sub-indicators with 'Yes' (out of 5)	10.1 HF has at least 1 staff trained on Integrated Management of Childhood Illness (IMCI)	Yes (1) No (0)	72. Have you or any provider(s) of curative care services for sick children received any training on IMCI?
	10.2 HF has Integrated IMCI guidelines available in the service area	Yes (1) No (0)	73. Please tell me if IMCI guidelines or full set of job aids are available in the service area today (observe)
	10.3 HF has essential equipment for child health available and functional in the service area on the day of the survey	Yes (1) No (0)	74. Are the following items present & functional (observe/ test): a) growth charts b) infant weighing scale c) thermometer d) stethoscope e) timer or watch with second hand
	10.4 HF has essential medicines for child health available on the day of the survey	Yes (1) No (0)	75. Please tell me if the following drugs are present (observe via stock check and that at least one pack of each medicine is NOT expired): a) Oral Rehydration Salts (ORS) sachets: b) Zinc sulphate tablets c) Zinc sulphate syrup or dispersible tablets 3) Vitamin A (retinol) capsules d) Co-trimoxazole syrup/suspension e) Paracetamol syrup/suspension f) Amoxicillin syrup/suspension or dispersible tablet g) Albendazole or Mebendazole tablet/ capsule
	10.5 HF has diagnostic capacity to carry out essential child health tests on the day of the survey	Yes (1) No (0)	76. I would like to know if the following diagnostic tests are conducted in the facility: a) Haemoglobin testing b) parasite in stool test c) Malaria Test-RDT d) Malaria test-smear test 77. I would like to know if the following general items are available and functional today (answers depend on which tests are offered in facility). a) Malaria rapid diagnostic test (RDT) b) Light microscope c) Glass slides and coverslips d) GIEMSA or FIELD malaria parasite stain f) Colorimeter/ Haemoglobinometer/ Hemocue (or an country specific method for hb testing)

DOMAIN & TOTAL POSSIBLE SCORE	SUB-DOMAIN (TOTAL 54)	SCORING: SUB-DOMAIN	QUESTIONS
11. IMMUNISATION SERVICES AVAILABILITY & READINESS Total sub-indicators with 'Yes' (out of 4)	11.1 HF has at least 1 staff trained on immunisation service delivery	Yes (1) No (0)	78. [filter question] What are the vaccinations offered in this health facility? 79. Have you or any of the other staff providing immunisation services been trained on vaccination/ EPI during the past two years?
	11.2 HF has essential immunisation guidelines & vaccination cards/ forms available in the service area	Yes (1) No (0)	80. Do you have the national guidelines for child vaccinations available in this service area today (observe)? 81. Are any of the following vaccination cards/ forms available at the facility today (observe)? a) Blank/unused individual child vaccination cards or booklets b) Official immunization tally sheets or integrated tally sheet c) Official immunization registers or equivalent d) Other
	11.3 HF has all essential equipment for immunisation available and functional on the day of the survey and stores vaccines correctly.	Yes (1) No (0)	82. [filter question] Does this facility routinely store any vaccines? 83. Does this facility have a vaccine refrigerator? (observe) 84. Is the fridge is temp correct? (observe: below +2 degrees C) 85. Is the fridge temperature record form completed? (observe: temp record completed at least two times each day for each of the past 30 days including weekends and public holidays) 86. How many vaccine carriers do you have (observe)? 87. Is at least one set of ice packs present (observe: 1 set=4-5 packs) 88. Is there a sharps box available in the vaccination service area (observe)? 89. Are auto-disposable syringes available (observe via stock check)?
	11.4 HF has all essential vaccines available on the day of the survey	Yes (1) No (0)	90. Please tell me if each of the following vaccines is available in the facility today. (observe): a) DPT-Hib+HepB [PENTAVALENT] b) Oral polio vaccine c) Measles vaccine and diluent d) BCG vaccine and diluent e) Rotavirus vaccine f) Pneumococcal vaccine g) IPV (Inactivated polio vaccine) h) HPV (Human papillomavirus vaccine)

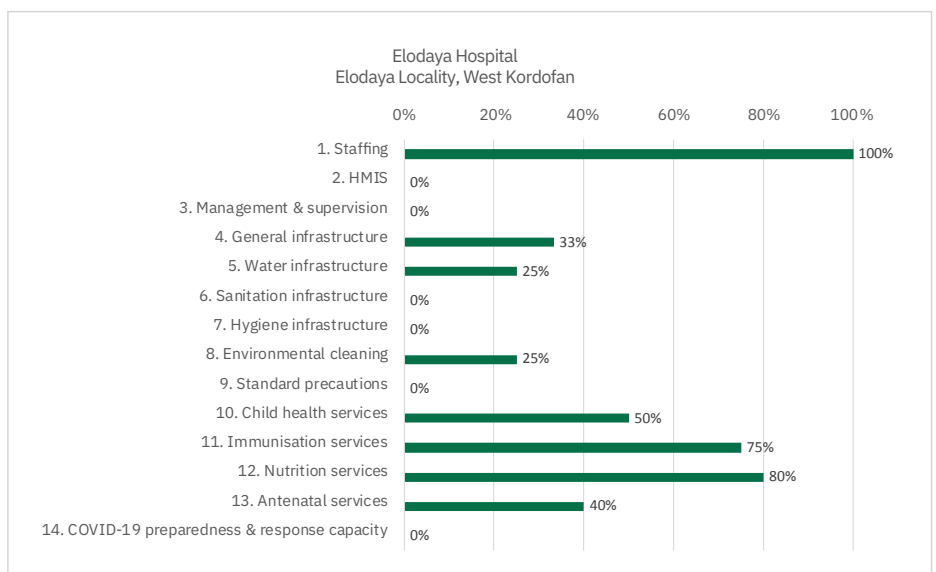
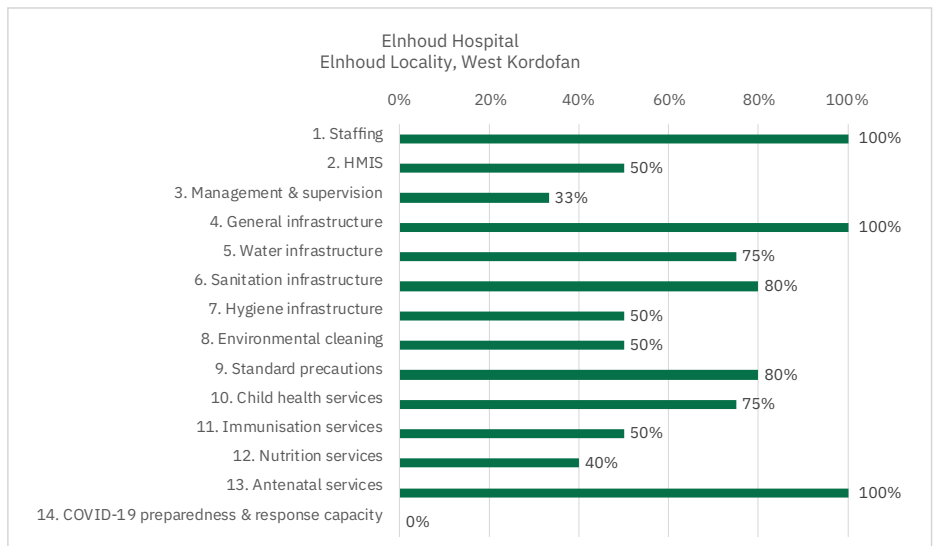
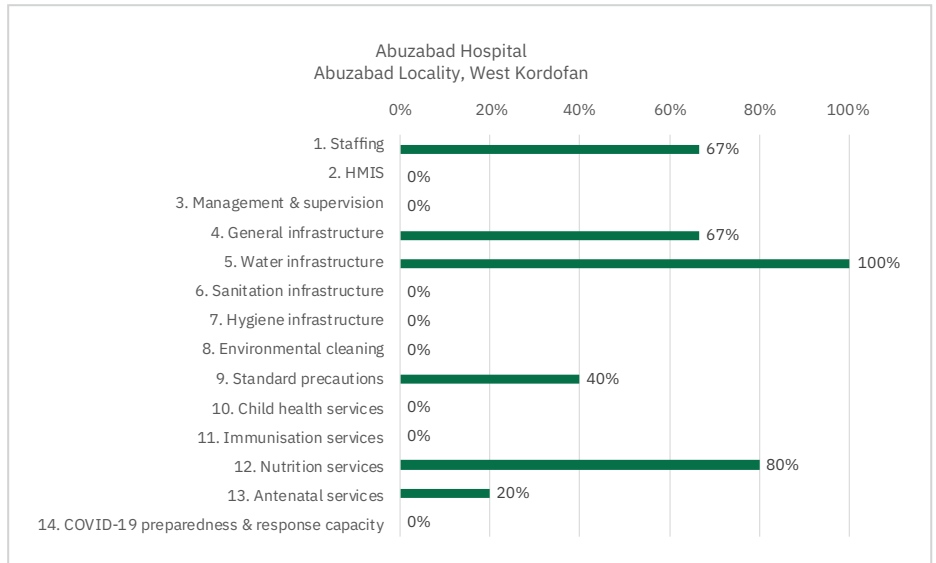
DOMAIN & TOTAL POSSIBLE SCORE	SUB-DOMAIN (TOTAL 54)	SCORING: SUB-DOMAIN	QUESTIONS
12. NUTRITION SERVICE AVAILABILITY & READINESS Total sub-indicators with 'Yes' (out of 5)	12.1 HF has at least 1 staff trained on nutrition services	Yes (1) No (0)	91. Did you or any other staff member providing nutrition services receive training in CMAM or IYCF within the last 2 years?
	12.2 HF has essential guidelines and job aids on nutrition services available in the service area	Yes (1) No (0)	92. Do you have the national guidelines for nutrition services available in this service area today (observe)? a) Guideline on Community based Management of Acute Malnutrition and b) Guideline on IYCF promotion 93. Do you have the following job aids available for nutrition services available in this service area today (observe)? a) nutrition register b) RUTF ration reference table 3) admission and discharge criteria for children with acute malnutrition 4) IYCF counselling cards 5) Weight-for-height (WHZ) tables for under-fives
	12.3 HF has essential nutrition equipment available and functioning in the service area	Yes (1) No (0)	94. Are the following items available in the service area? (observe and assess their functionality. a) MUAC tape for children and b) MUAC tape for adults and c) weighing scale for adults and d) weighing scale for children and e) Length/height board f) Other
	12.4 HF has essential commodities (RUTF) available	Yes (1) No (0)	95. Is RUTF available today? (observe via stock check and check at least one sachet is not expired)
	12.5 HF has linkages with community-based health worker/volunteers to support nutrition services	Yes (1) No (0)	96. Does this facility have links with community-based health workers or volunteers to support nutrition services (observe list of names)? 97. Are children referred from the community to the health facility for nutrition services?
13. ANTENATAL CARE SERVICE AVAILABILITY AND READINESS Total sub-indicators with 'Yes' (out of 5)	13.1 HF has at least 1 staff trained on antenatal care services	Yes (1) No (0)	Have you or any provider(s) of ANC services received ANC training in the last two years?
	13.2 HF has guidelines on antenatal services available in the service area	Yes (1) No (0)	98. Are the following documents available in the facility today (observe each): a) National ANC guidelines b) IPTp guidelines/ protocol c) Visual aids for client education on pregnancy or antenatal care [Only include IPTp guideline if in national protocol]
	13.3 HF has essential equipment for antenatal services available and functional in the service area	Yes (1) No (0)	99. Is there a digital BP machine or manual sphygmomanometer with stethoscope available? (observe and test functional)
	13.4 HF has essential drugs for antenatal services available	Yes (1) No (0)	100. Are the following ANC medicines available today in this facility (observe via stock check and that at least one pack of each type is NOT expired): a) iron tablets b) folic acid tablets c) combined iron and folic acid tablets d) Sulfadoxine-Pyrimethamine (SP) / Fansidar for Intermittent preventive treatment in pregnancy (IPTp) (include/ don't include SP/ Fansidar per national protocol)
	13.5 HF has essential diagnostics equipment/ supplies for antenatal services available	Yes (1) No (0)	101. Does this facility provide the following tests from this site to pregnant women as part of ANC? (observe at least one test is available): a) Urine dipstick protein test b) Haemoglobin test

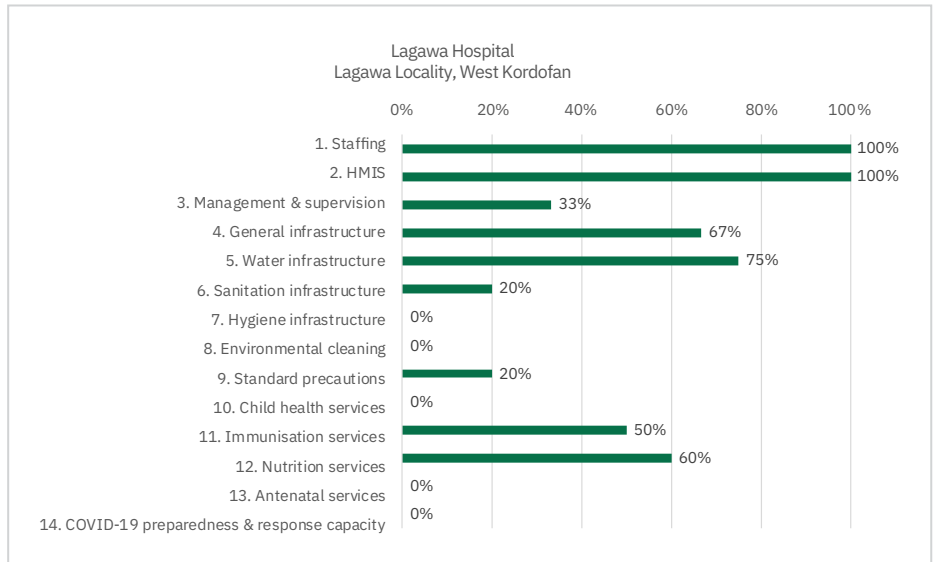
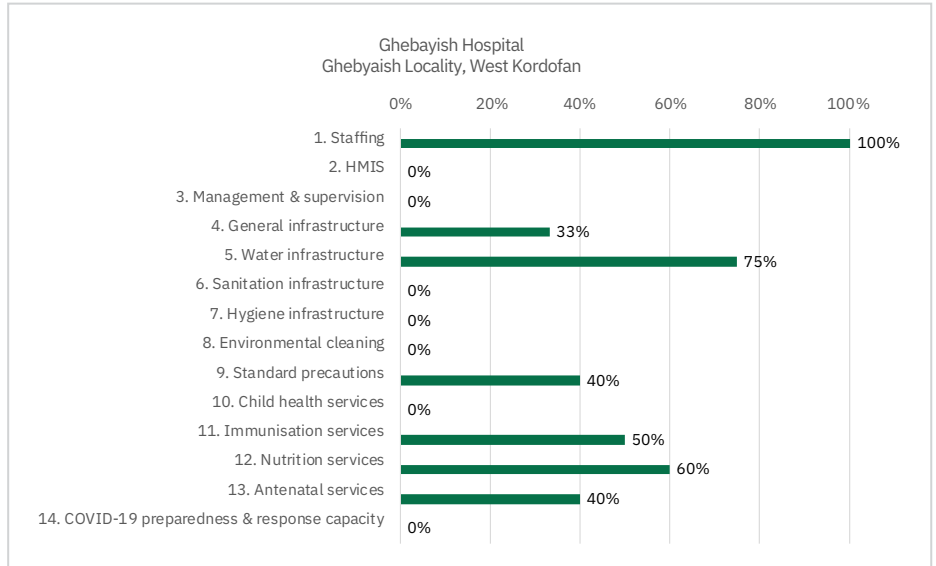
DOMAIN & TOTAL POSSIBLE SCORE	SUB-DOMAIN (TOTAL 54)	SCORING: SUB-DOMAIN	QUESTIONS
14. COVID-19 PREPAREDNESS & RESPONSE CAPACITY Total sub-indicators with 'Yes' (out of 4)	14.1 HF has all staff trained on COVID-19	Yes (1) No (0)	102. Have you and any of the staff in this HF received any training on COVID-19?
	14.2 HF has essential job aids for COVID-19 available	Yes (1) No (0)	103. Are essential COVID-19-specific Job aids present? (observe) a) how to put on and remove PPE AND b) Instruction on chlorine dilution AND c) handwashing with soap and water posters
	14.3 HF has adequate triage capacity (i.e. screening and isolation for COVID-19 suspected cases)	Yes (1) No (0)	104. Is there a screening area in this facility and does it have the following? (observe) a) Screening area set up at entry point to the facility b) Temperature recorded in screening area c) case definition and screening questionnaire for any suspected cases are available d) Appropriate physical distancing of at least 1 to 2 metres in screening area / queues 105. Is an isolation area available and functioning? (observe) a) Designated isolation area for suspected COVID-19 cases that is separate from the main facility b) Distance of at least 1 to 2 metres between suspected cases in the isolation area c) All suspected cases admitted in the isolation area wearing disposable medical or surgical masks d) Visitor restriction - max. 1 asymptomatic relative e) Record (name and contacts) maintained of all persons (staff, visitors) entering isolation area
	14.4 HF has a supply of essential Personal Protective Equipment (PPE) items	Yes (1) No (0)	106. Please tell me if you have all the following PPE items (observe via stock): a) Disposable medical/ surgical masks b) Eye protection (goggles or face shields and c) Gloves (latex) and d) Heavy-duty gloves and e) Long-sleeved gown and f) waterproof aprons and g) Closed work shoes/boots and h) Chlorine-based or other country-specific used for environmental disinfection

Annex 6. Percent scores per domain for each facility: South Kordofan



Annex 7. Percent scores per domain for each facility: West Kordofan





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