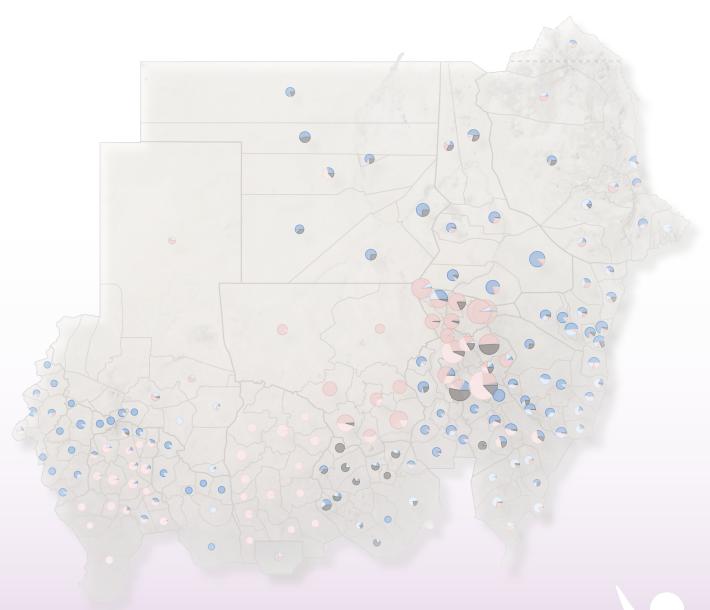


# **HeRAMS** Sudan

Baseline report **2025** 



Noncommunicable diseases and mental health

A comprehensive mapping of availability of essential services and barriers to their provision



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# HeRAMS Sudan Baseline report 2025

# Noncommunicable diseases and mental health

A comprehensive mapping of availability of essential services and barriers to their provision







# **ACRONYMS**

**HeRAMS** Health Resources and Services Availability Monitoring System

**HSDU** Health Service Delivery Unit

NCD Noncommunicable Disease

**CVD** Cardiovascular Disease

**COPD** Chronic Obstructive Pulmonary Disease

**WHO** World Health Organization

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# DISCLAIMER

Disruptions to health systems can impede provision of and access to essential health services. Communities' vulnerability to increased morbidity and mortality substantially increases when a lack of reliable information prevents sound decision-making, especially in rapidly changing environments that require continued assessment. The Health Resources and Services Availability Monitoring System (HeRAMS) aims to provide decision-makers and health stakeholders at large with vital and up-to-date information on the availability of essential health resources and services, help them identify gaps and determine priorities for intervention.

HeRAMS draws on the wealth of experience and knowledge gathered by the World Health Organization (WHO) and health sector actors, including nongovernmental organizations, donors, academic institutions and other technical bodies. It builds on a collaborative approach involving health service providers at large and integrating what is methodologically sound and feasible in highly constrained, low-resourced and rapidly changing environments such as humanitarian emergencies. Rapidly deployable and scalable to support emergency response and fragile states, HeRAMS can also be expanded to - or directly implemented as - an essential component of routine health information systems. Its modularity and scalability make it an essential component of emergency preparedness and response, health systems strengthening, universal health coverage and the humanitarian development nexus.

HeRAMS has been deployed in Sudan since 2023 and has allowed for the assessment of 4363 health service delivery units (HSDUs). This analysis was produced based on the data collected up to 01 July 2025. It is important to note that the deployment of HeRAMS is ongoing, including data verification and validation. Hence, this analysis is not final and was produced solely for the purpose of informing operations.

This is the sixth report of the HeRAMS Sudan baseline report 2025 series, focusing on the availability of noncommunicable diseases (NCD) and mental health services. It is a continuation of the first report on the operational status of the health system<sup>1</sup> and should always be interpret in conjunction with results presented in the first report. Additional reports are available covering essential general clinical and trauma care services<sup>2</sup>, child health and nutrition services<sup>3</sup>, communicable diseases services<sup>4</sup> and sexual and reproductive health services<sup>5</sup>.

Caution must be taken when interpreting the results presented in this report. Differences between information products published by WHO, national public health authorities, and other sources using different inclusion criteria and different data cut-off times are to be expected. While steps are taken to ensure accuracy and reliability, all data are subject to continuous verification and change.

For additional information, please see <a href="https://www.who.int/initiatives/herams">https://www.who.int/initiatives/herams</a> or contact <a href="herams@who.int">herams@who.int</a>

HeRAMS Sudan baseline report 2025 - Operational status of the health system: A comprehensive mapping of the operational status of HSDUs, https://www. who.int/publications/m/item/herams-sudan-baseline-report-2025-operational-status-of-the-health-system

HeRAMS Sudan baseline report 2025 - General clinical and trauma care: A comprehensive mapping of availability of essential services and barriers to their provision, https://www.who.int/publications/m/item/herams-sudan-baseline-report-2025-general-clinical-and-trauma-care.

HeRAMS Sudan baseline report 2025 - Child health and nutrition: A comprehensive mapping of availability of essential services and barriers to their provision, https://www.who.int/publications/m/item/herams-sudan-baseline-report-2025-child-health-and-nutrition

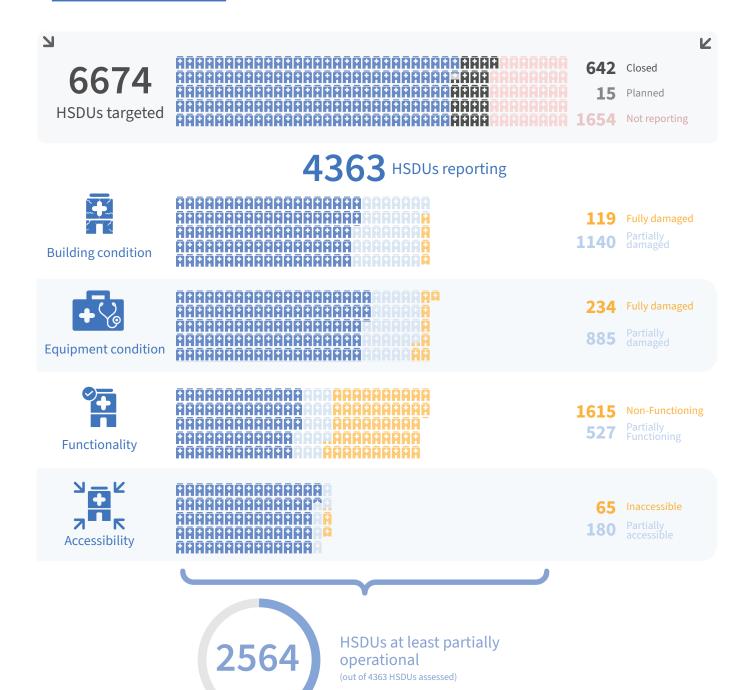
HeRAMS Sudan baseline report 2025 - Communicable diseases: A comprehensive mapping of availability of essential services and barriers to their provision, https://www.who.int/publications/m/item/herams-sudan-baseline-report-2025-communicable-diseases.

HeRAMS Sudan baseline report 2025 - Sexual and reproductive health: A comprehensive mapping of availability of essential services and barriers to their provision, https://www.who.int/publications/m/item/herams-sudan-baseline-report-2025-sexual-and-reproductive-health.



# **OVERVIEW OF HSDUS EVALUATED**

Data collection summary 6



<sup>&</sup>lt;sup>6</sup> HSDUs (Health Service Delivery Units) reported as destroyed, non-functioning, or inaccessible are deemed unable to provide any health services, hence categorized as non-operational. Consequently, reporting ends upon confirmation of an HSDU's non-operational status.

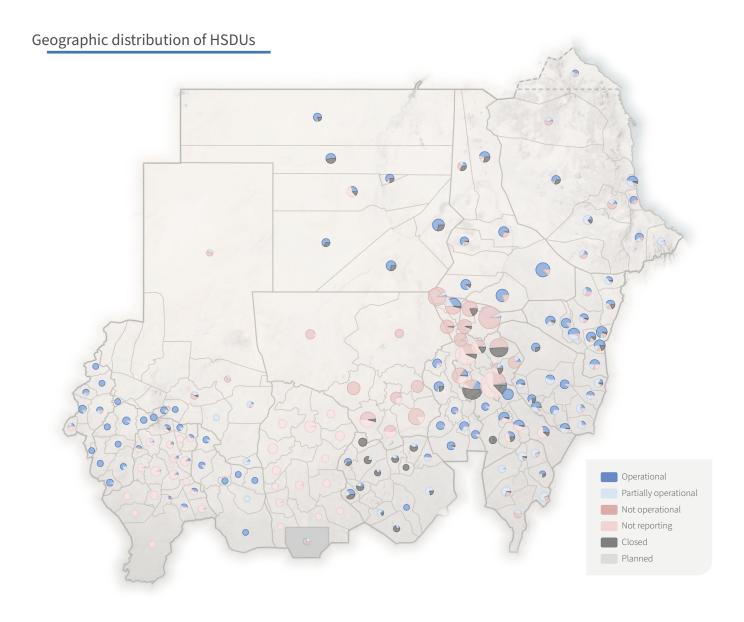


# Reporting frequency and operational status by state

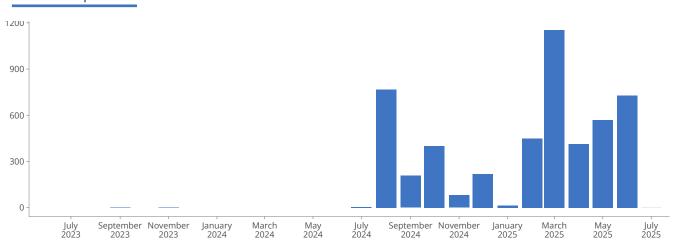
	Hospital Rural hospital					tal	Family health unit					Family health center				Other				Total				
	0	N/O	N/R	P/C	0	N/O	N/R	P/C	0	N/O	N/R	P/C	0	N/O	N/R	P/C	0	N/O	N/R	P/C	0	N/O	N/R	P/C
ABYEI PCA	-	-		-	1	-		-	2	-		1	1	2		2	-	2		3	4	4		6
AJ JAZIRAH	10	3	12	9	20	12	18	16	27	169	178	97	52	177	176	109	-	-		-	109	361		231
BLUE NILE	5	-		-	8	1		-	56	24	2	2	66	12		4	3	-		-	138	37	2	6
CENTRAL DARFUR	3	-		-	1	-		-	32	-		-	42	-	1	-	6	-		-	84	-	1	-
EAST DARFUR	-	-		-	1	-		-	4	-		-	19	-		-	2	-		-	26	-		-
GEDAREF	6	-		-	30	-		-	206	6	18	18	114	-	1	3	-	-		-	356	6	19	21
KASSALA	29	-	4	-	14	2		2	148	36	13	13	202	13	9	18	-	-		1	393	51	26	34
KHARTOUM	16	66		4	11	4		-	4	160		10	74	489		18	-	-		-	105	719		32
NORTH DARFUR	3	-		-	-	-		-	16	8	1	-	15	13		-	2	-		1	36	21	1	1
NORTH KORDOFAN	1	3	1	-	5	16	6	-	2	294	72	1	3	149	58	-	-	12		4	11	474	137	5
NORTHERN	4	_		-	22	_	2	-	89	_	23	76	77	_	10	11	-	_		-	192	-		87
RED SEA	11	_	2	-	13	3		2	76	49		12	110	11	3	5	3	_		-	213	63		19
RIVER NILE	3	_		1	27	1	1	-	76	20	9	21	196	33	6	13	-	_		-	302	54	16	35
SENNAR	7	_		2	19	_		1	53	_	103	25	101	_	11	14	-	_		-	180	-	114	42
SOUTH DARFUR	1	_	1	-	4	-	10	-	15	-	200	-	48	-	144	2	-	-		-	68	-		2
SOUTH KORDOFAN	3	-		-	1	_		2	39	1	4	77	67	-		42	-	_		-	110	1	4	121
WEST DARFUR	3	_		-	4	-		-	2	_	2	-	32	3	2	1	2	_		2	43	3	4	3
WEST KORDOFAN	1	_	5	-	2	_	19	-	-	_	151	-	1	_	206	-	-	_		-	4	-	381	-
WHITE NILE	21	-	1	-	1	-		-	105	4	5	12	63	1	2	-	-	_		-	190	5		12
GRAND TOTAL	127	72	39	16	184	39	56	23	952	771	858	365	1283	903	701	242	18	14	_	11	2564	1799	1654	657

 $<sup>\</sup>mathbf{O}$  = At least partially operational -  $\mathbf{N/O}$  = Not operational -  $\mathbf{N/R}$  = Not reporting -  $\mathbf{P/C}$  = Planned / closed





# Date of last update





# **OVERVIEW OF SERVICE** AVAILABILITY

# Service availability and main barriers

				Bar	riers	(%)	
Service	Availabilit	61	<b>†</b> □	100	+%	5	
Comprehensive community health services	<b>413</b> 50	41	58	17	72	51	21
NCD clinic	<b>13</b> 5 <b>4</b> 36	41	43	20	88	49	14
Asthma and COPD	<b>12</b> 2 <mark>4</mark> 40	41	28	23	87	50	25
Hypertension	<b>25</b> 6 <b>3</b> 24	41	23	18	89	48	30
Diabetes	<b>19</b> 5 <b>5</b> 28	41	26	21	91	49	30
Inpatient acute rehabilitation	2 <mark>1</mark> 54	41	10	10	79	71	37
Outpatient or community level rehabilitation services	<mark>32</mark> 52	41	39	10	85	71	28
Prosthetics and Orthotics	<b>11</b> 56	41	74	3	90	82	19
Oral health and dental care	4 5 49	41	46	16	80	72	46
Psychological first aid	2 <mark>2</mark> 53	41	66	28	64	54	15
Management of mental disorders	1 <mark>2</mark> 55	41	54	15	80	69	24
Inpatient care for mental disorders	<mark>2</mark> 55	41	19	5	88	88	75
Inpatient care for mental disorders by specialists	57	41	50	18	74	58	39

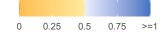




# Number of HSDUs providing services per target population <sup>7</sup>

						•	_													
	Abyei PCA	Aj Jazirah	Blue Nile	Central Darfur	East Darfur	Gedaref	Kassala	Khartoum	North Darfur	North Kordofan	Northern	Red Sea	River Nile	Sennar	South Darfur	South Kordofan	West Darfur	West Kordofan	White Nile	Target population
Comprehensive community health services	0.2	0	0.3	0.2	0	0	0.1	0	0	0	0.3	0	0	0	0	0	0.2	0	0	10 000
NCD clinic	0.7	0	0.3	0.4	0	0.4	0.7	0	0	0	1.2	0.1	0.1	0	0.1	0	0.3	0	0	10 000
Asthma and COPD	0	0	0.5	0.3	0	0	0.6	0.1	0	0	1.1	0.1	0.1	0	0.1	0	0.3	0	0	10 000
Hypertension	1.5	0	0.5	0.4	0	0.6	0.7	0.1	0	0	1.2	0.4	1.3	0.1	0.1	0.1	0.4	0	0.3	10 000
Diabetes	0.5	0	0.4	0.3	0	0.4	0.5	0.1	0	0	1.1	0.2	1.2	0.1	0.1	0	0.3	0	0.2	10 000
Inpatient acute rehabilitation	0	0	7.1	3.3	0.2	0.2	1.7	0.6	0.1	0	0.5	0.1	0.6	0.6	0.6	0.1	1.4	0	0.1	250 000
Outpatient or community level rehabilitation services	0	0	0.3	0.3	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.2	0	0	10 000
Prosthetics and Orthotics	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10 000
Oral health and dental care	0	0	0.2	0	0	0	0.1	0	0	0	0.1	0.1	0.3	0	0	0	0.1	0	0	10 000
Psychological first aid	0.5	0	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	10 000
Management of mental disorders	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	10 000
Inpatient care for mental disorders	0	0	2.8	0.8	0	0.2	0.5	0.2	0.1	0	0.2	0.2	0	0.6	0.1	0	0	0	0.1	250 000
Inpatient care for mental disorders by specialists	0	0	2.5	0.8	0	0.1	0.5	0.1	0.1	0	0.1	0.2	0	0.6	0.1	0	0	0	0	250 000

### Number of HSDUs per target population



<sup>&</sup>lt;sup>7</sup> To account for partially available services, a weighing was applied with a weight of 1 given to services reported as fully available and 0.5 for partially available services. As target populations may vary across services, an additional column has been included to the right of the graph to assist readers in comprehending the target populations associated with each service. See <u>Annex I</u> for population estimates per state.

# IN-DEPTH ANALYSIS BY HEALTH SERVICE





# INTERPRETATION GUIDE

### Service status

**Arc charts** provide an overview of the overall availability of a health service. The total number of HSDUs included in the analysis of a service is shown inside the arc chart.





For further insights, donut charts break down service availability by HSDU type. To improve readability, labels indicating the availability level for each category are provided either beside or below the chart. Additionally, to highlight the percentage of HSDUs where an service is available up to standard, the number may also be prominently placed inside the chart. Information on the total number of HSDUs included is clearly indicated above or below the respective donut.

**Column charts** offer a breakdown of service availability by state. The numbers represented by the bars indicate the count of HSDUs that fall into the specified availability category. The length of each bar is determined by the total number of HSDUs in the state. The total number of HSDUs included in each state is indicated under the state name.





**Column charts by HSDU type** display the availability of services by state and HSDU type. Each bar represents the percentage of HSDU falling into each category for the specified HSDU type and state. The grey bar on the right shows the number of HSDU falling into the category. By default these charts exclude HSDUs where a service was not normally provided or the HSDU did not report on it.

**Maps** use pie charts to depict the availability of an service at the locality level. The size of each circle represents the total number of HSDUs in the locality, while each slice reflects a specific availability level.



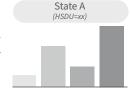
# **Barriers**



To gain a more comprehensive understanding of the challenges faced by HSDUs, whenever a service was not or only partially available, main barriers impeding availability were recoded.

Each **donut chart** indicates the percentage of HSDUs having reported a specific barrier. The total number of HSDUs reporting at least one barrier is shown below the chart header.

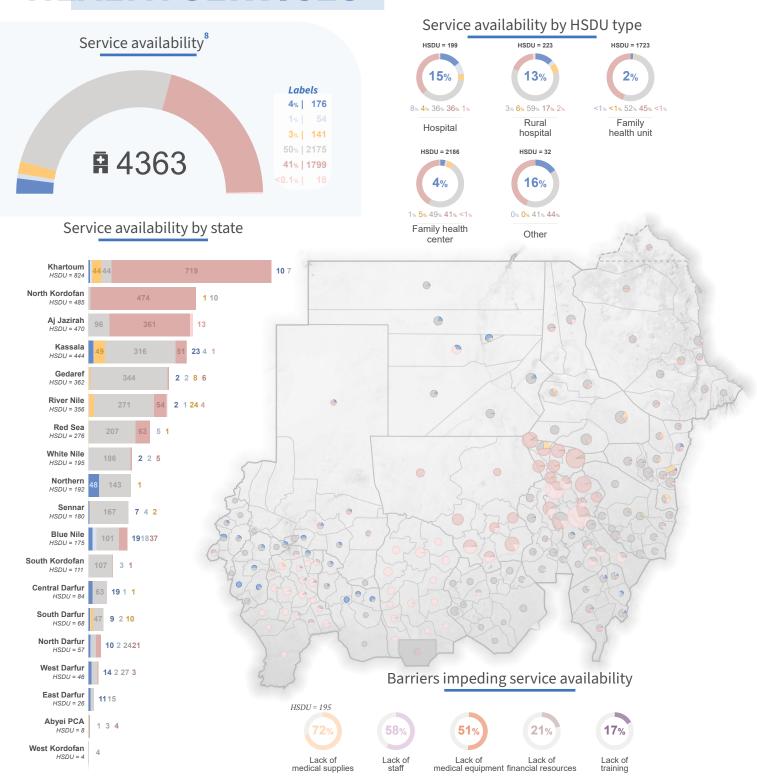
**Bar charts** further break down barriers by state. Each bar represents a specific barrier, with the percentage value indicating the proportion of HSDUs reporting that particular barrier. Additionally, the number of HSDUs reporting at least one barrier is displayed below the Locality's name.



**Important:** The denominator for barrier charts excludes HSDUs where the service is fully available or not normally provided. It should further be noted that HSDUs can report up to three barriers for each service. Thus, the sum of all barriers may exceed 100%.



# **COMPREHENSIVE COMMUNITY HEALTH SERVICES**



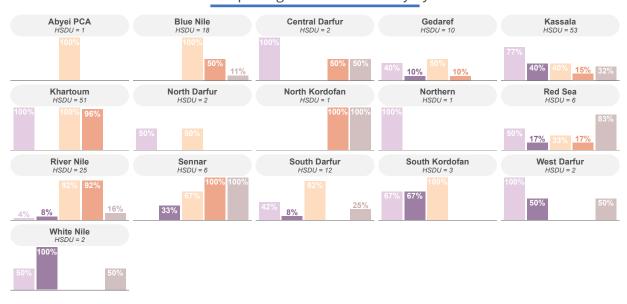
Provide basic health care and psychosocial support, identify and refer severe cases for treatment, provide needed follow-up to patients discharged by the HSDU, and provide social services for people with chronic health conditions, disabilities, and mental health problems.

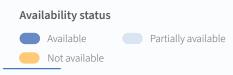


# 2/60

### Service availability by HSDU type and state\*





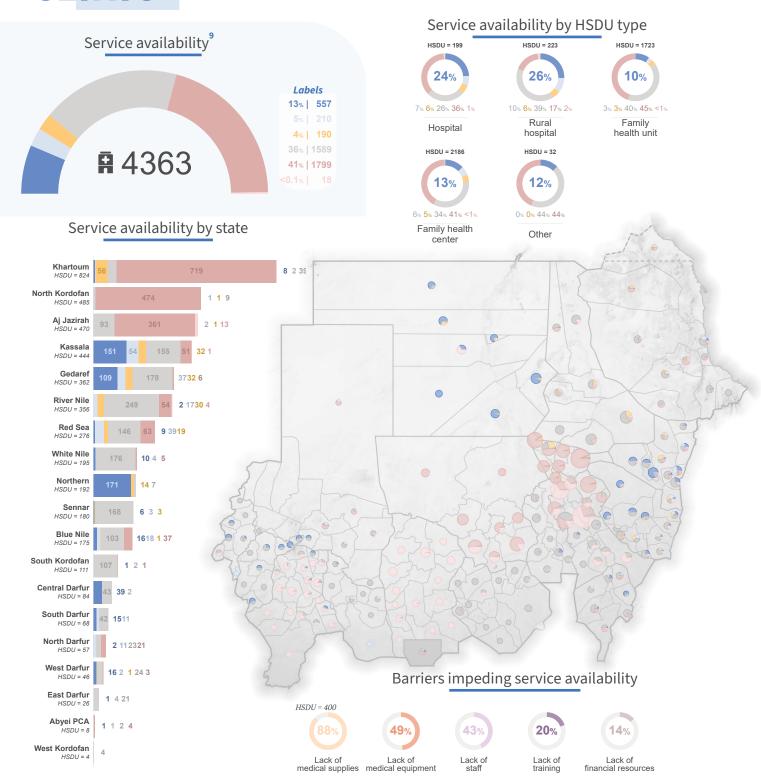








# **NONCOMMUNICABLE DISEASE CLINIC**



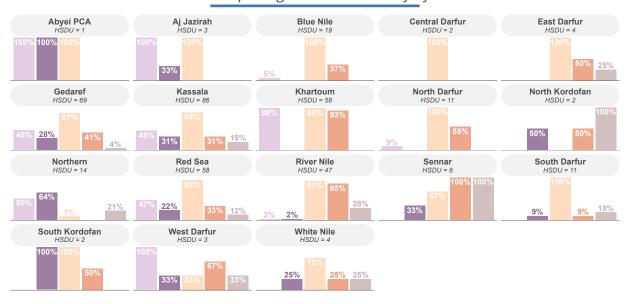
Brief advice on tobacco, alcohol, and substance abuse, healthy diet, screening and management of risks of cardiovascular disease, individual counseling on adherence to chronic therapies, availability of blood pressure apparatus, blood glucose and urine ketones test strips, and essential NCD drugs as per

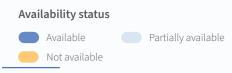


# 20

# Service availability by HSDU type and state\*





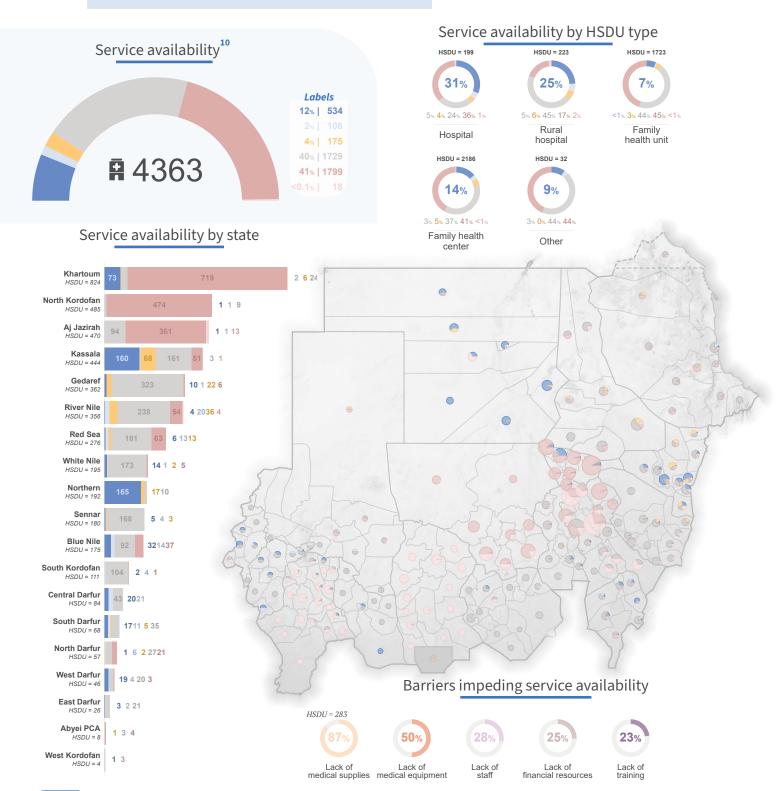




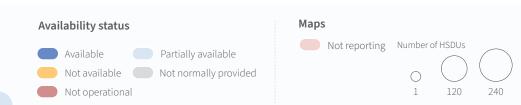




# **ASTHMA AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE**



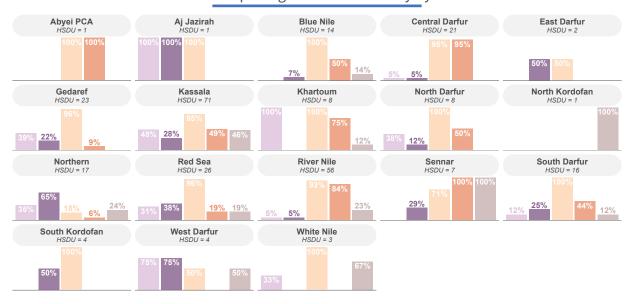
10 Asthma and chronic obstructive pulmonary disease classification, treatment, and follow-up.

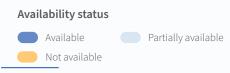


# 2/60

# Service availability by HSDU type and state\*





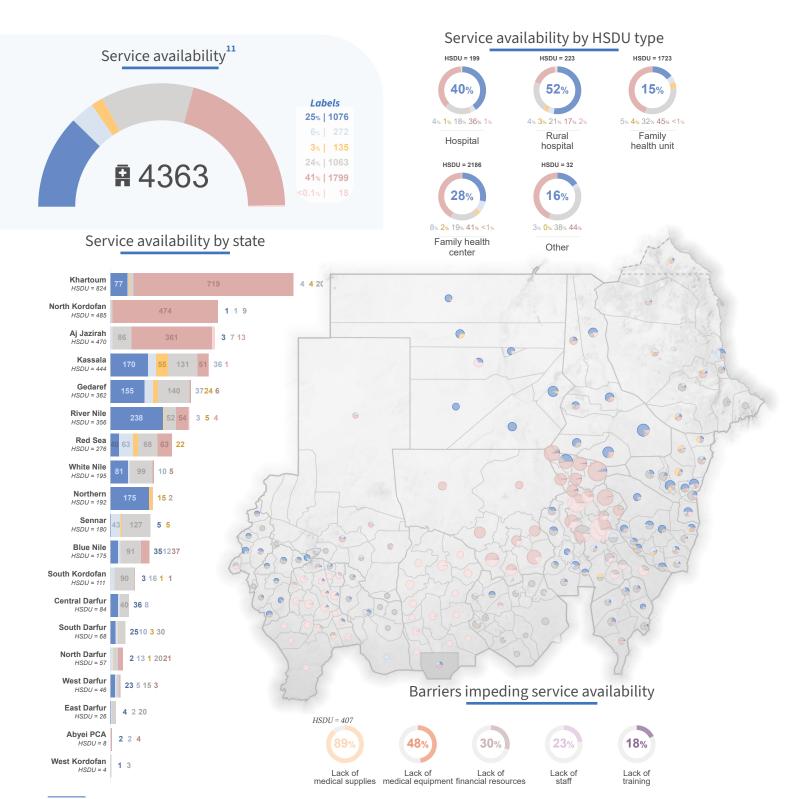




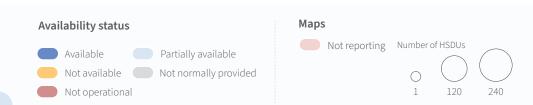




# **HYPERTENSION**



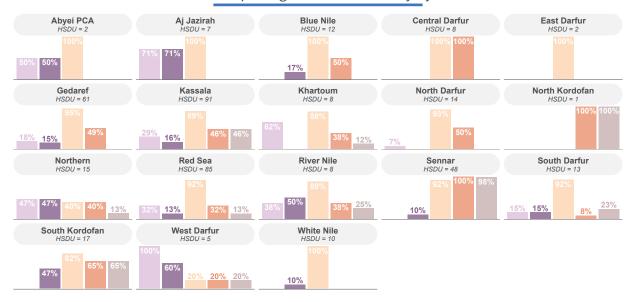
11 Hypertension early detection, management, and counseling (including dietary advice), follow-up.

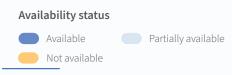




### Service availability by HSDU type and state\*





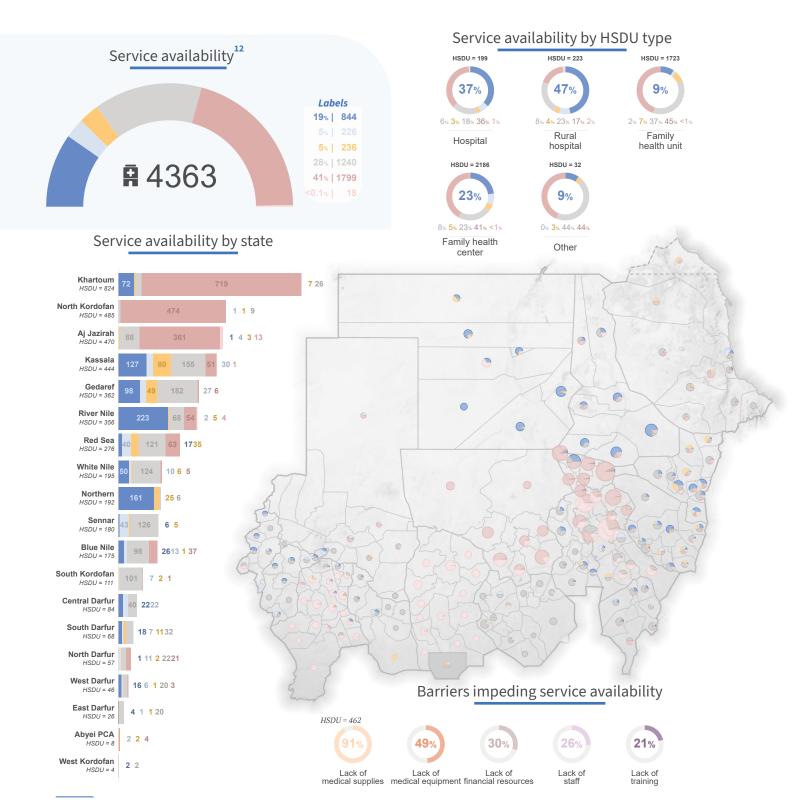








# **DIABETES**



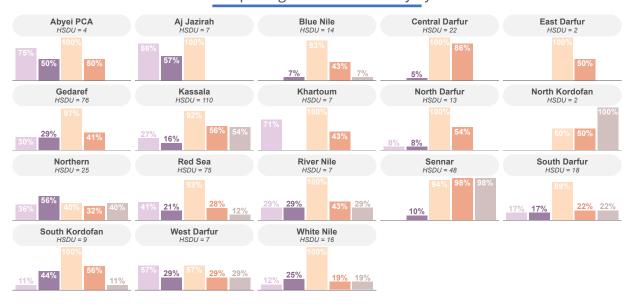
12 Diabetes early detection, management (oral anti-diabetic and insulin available), counseling (including dietary advice), foot care, and follow-up.

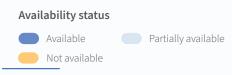


# 2/60

# Service availability by HSDU type and state\*



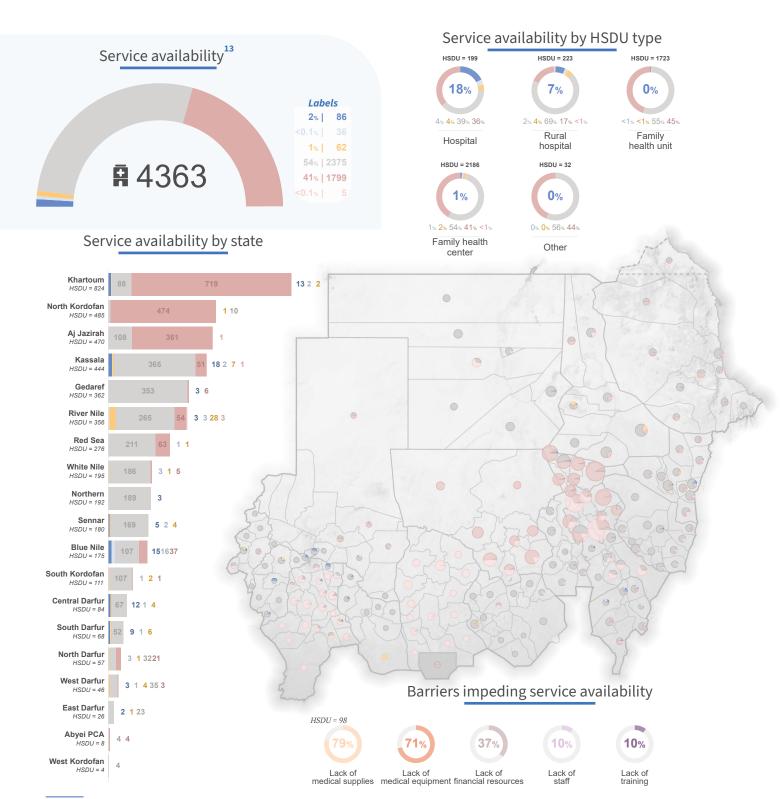








# INPATIENT ACUTE REHABILITATION

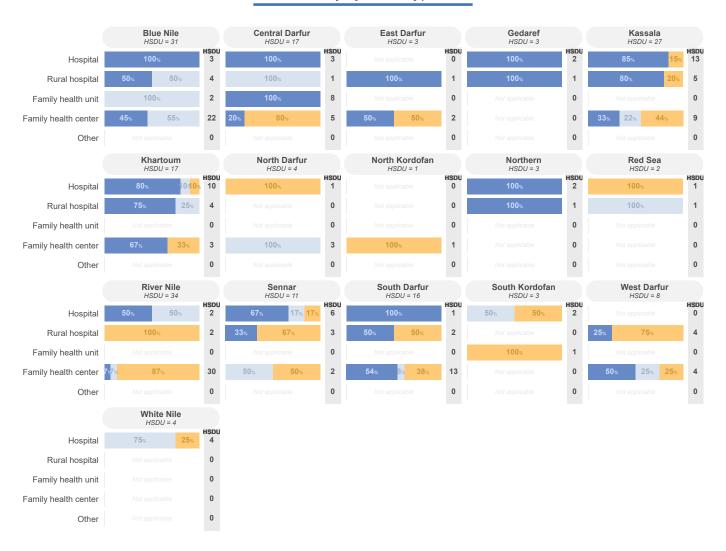


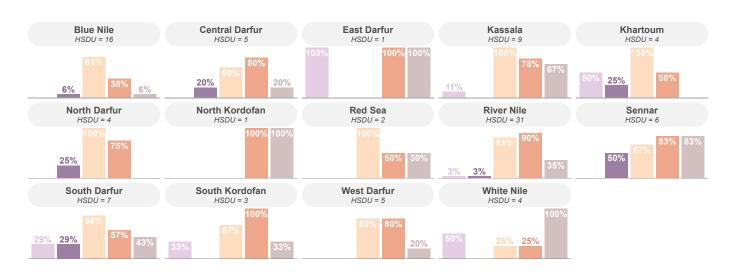
<sup>13</sup> Inpatient rehabilitation for people with acute injury or illness, delivered by rehabilitation professionals as part of multi-disciplinary acute care, including the provision of assistive devices such as crutches or wheelchairs.

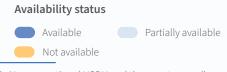


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# Service availability by HSDU type and state\*



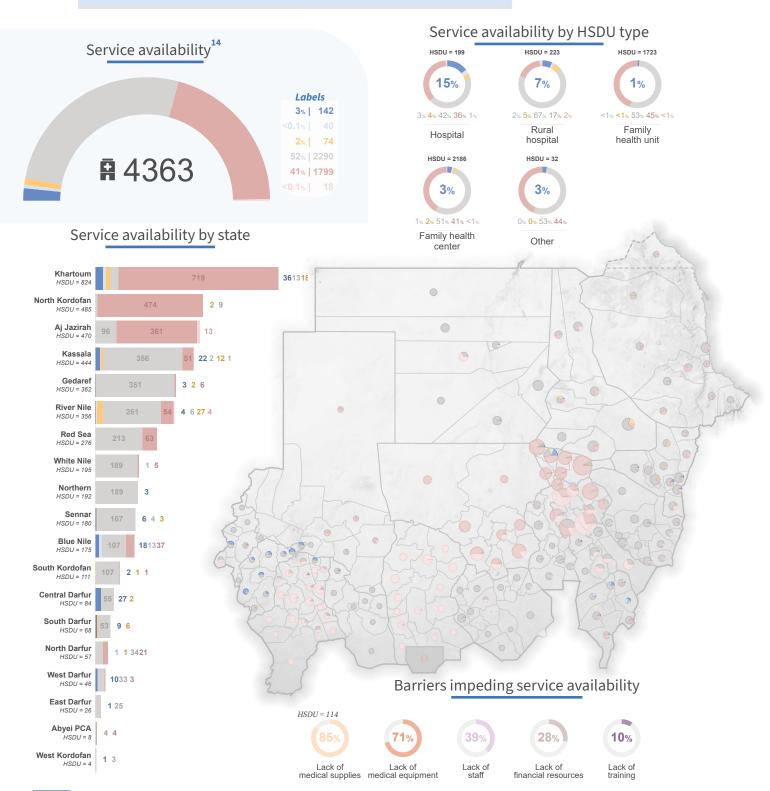




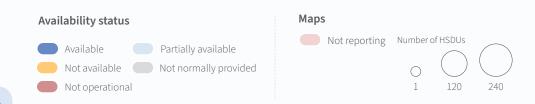




# OUTPATIENT OR COMMUNITY LEVEL REHABILITATION SERVICES

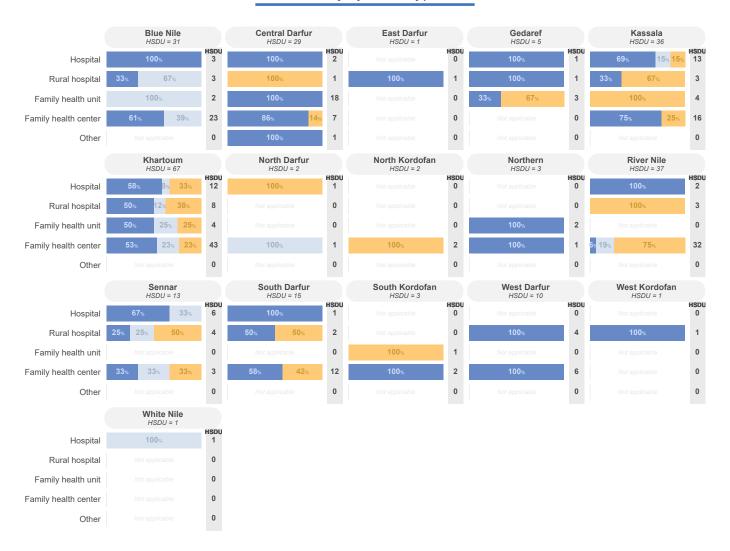


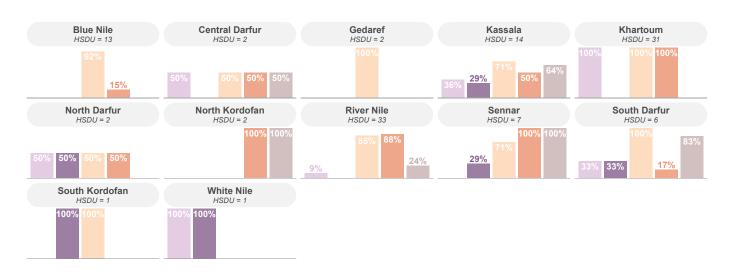
<sup>14</sup> Outpatient services provided by a rehabilitation professional via an outpatient service often as part of follow-up care, including assistive device provision or maintenance.

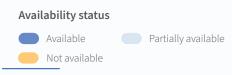


# 2/60

# Service availability by HSDU type and state\*



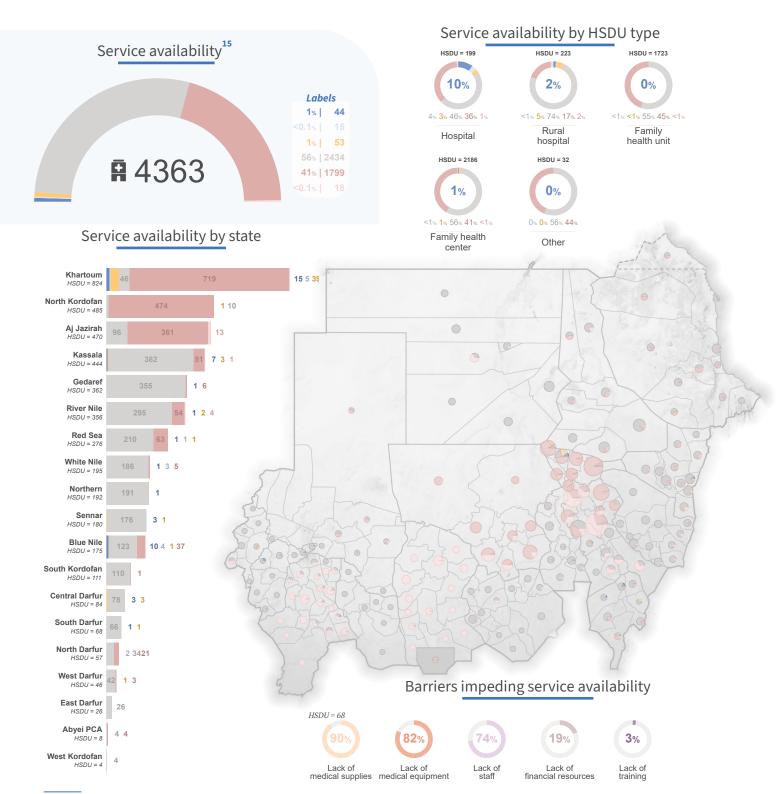




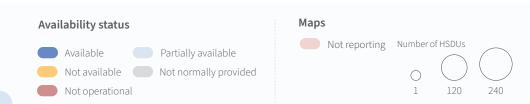




# **PROSTHETICS AND ORTHOTICS**

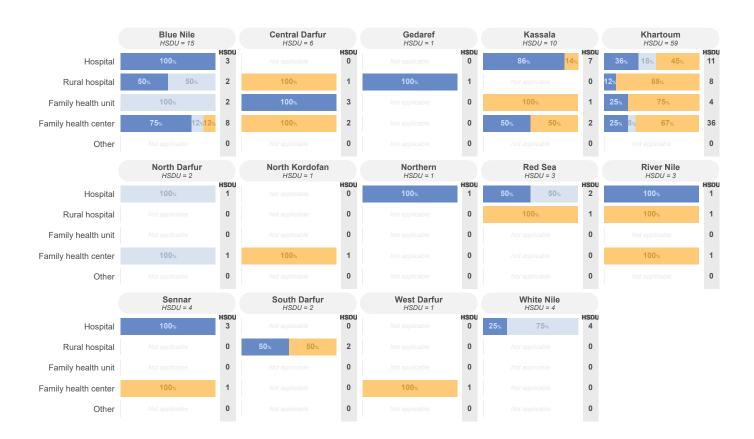


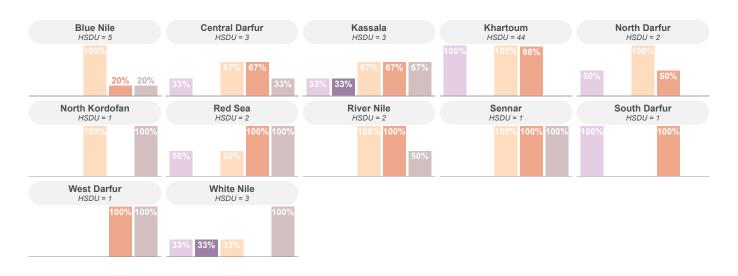
15 Manufacture, fitting, and training to use prosthetic and orthotic devices.

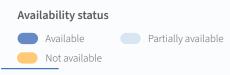




# Service availability by HSDU type and state\*





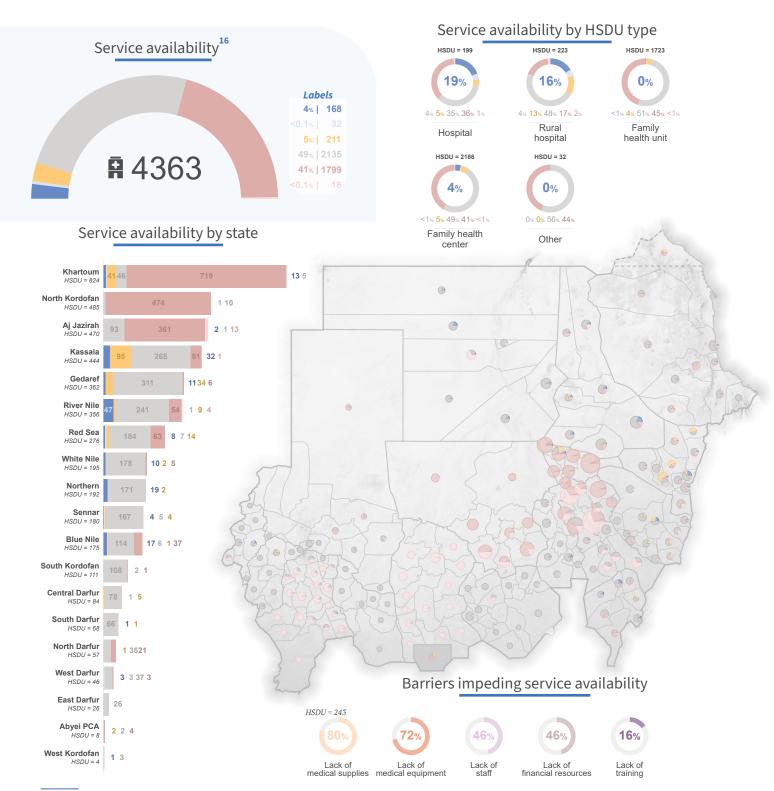








# **ORAL HEALTH AND DENTAL CARE**



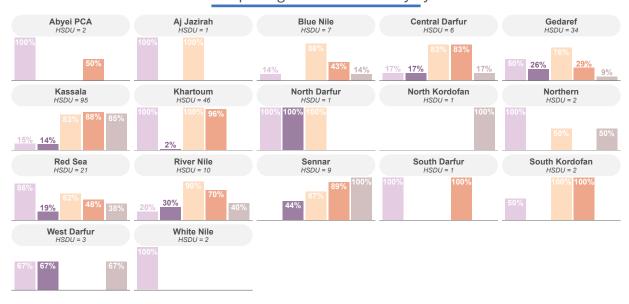
16 Oral health and dental care services.

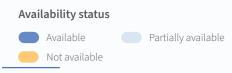


# 2/60

# Service availability by HSDU type and state\*





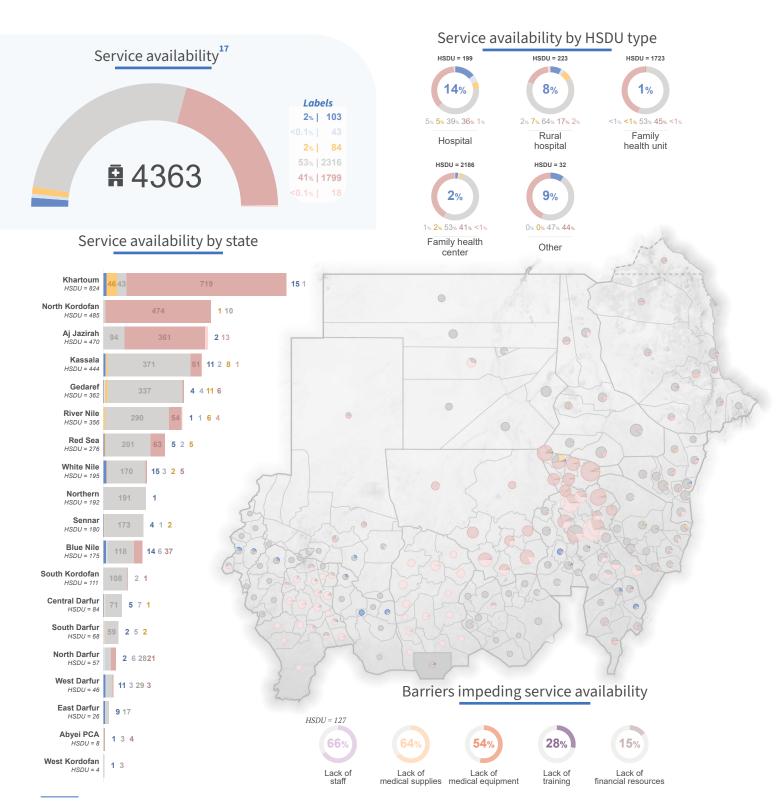




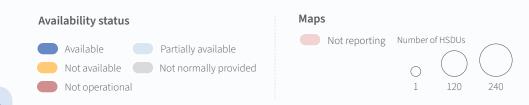




# **PSYCHOLOGICAL FIRST AID**



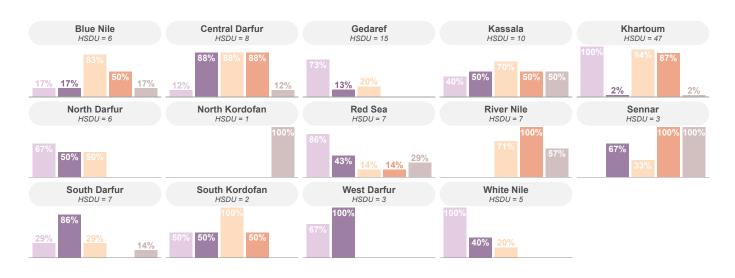
<sup>17</sup> Psychological first aid for distressed people, survivors of assault, abuse, neglect, domestic violence, and linking vulnerable individuals/families with resources, such as health services, livelihood assistance, etc.

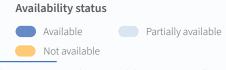




# Service availability by HSDU type and state\*





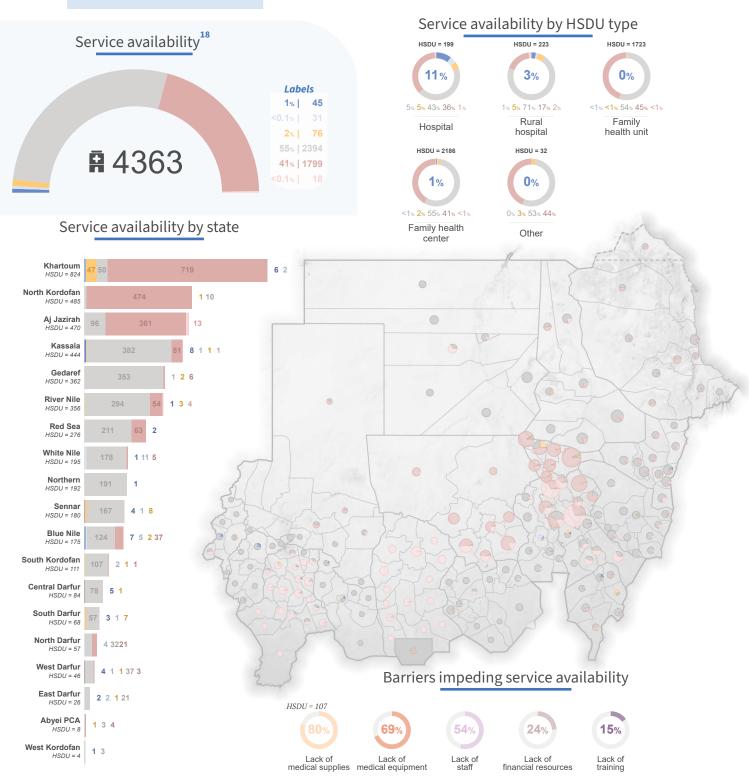








# **MANAGEMENT OF MENTAL DISORDERS**

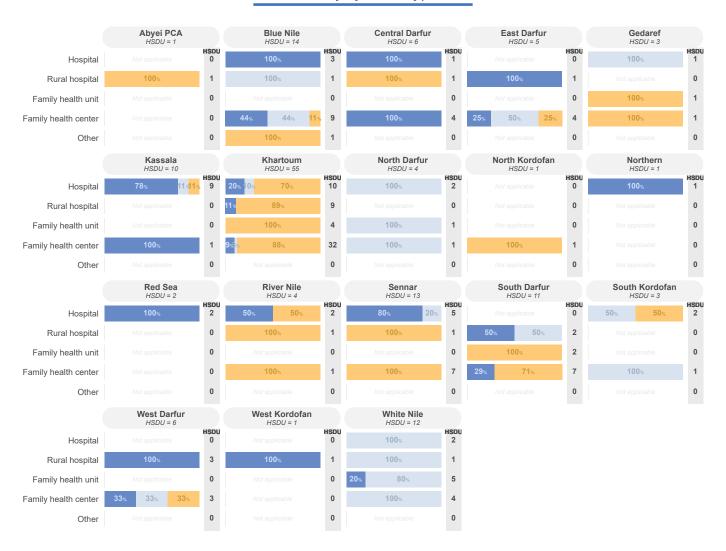


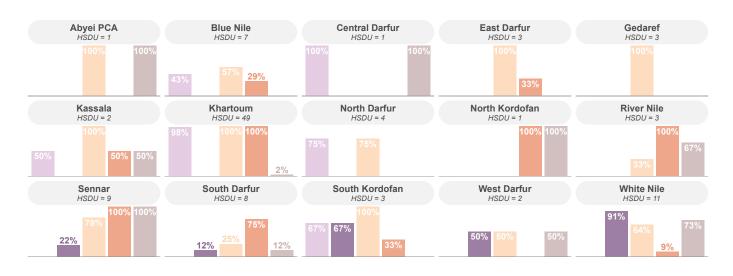
<sup>18</sup> Management of mental disorders by specialized and/or trained and supervised non-specialized healthcare providers, availability of fluoxetine, carbamazepine, haloperidol, biperiden, and diazepam.

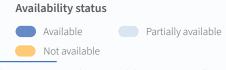




# Service availability by HSDU type and state\*



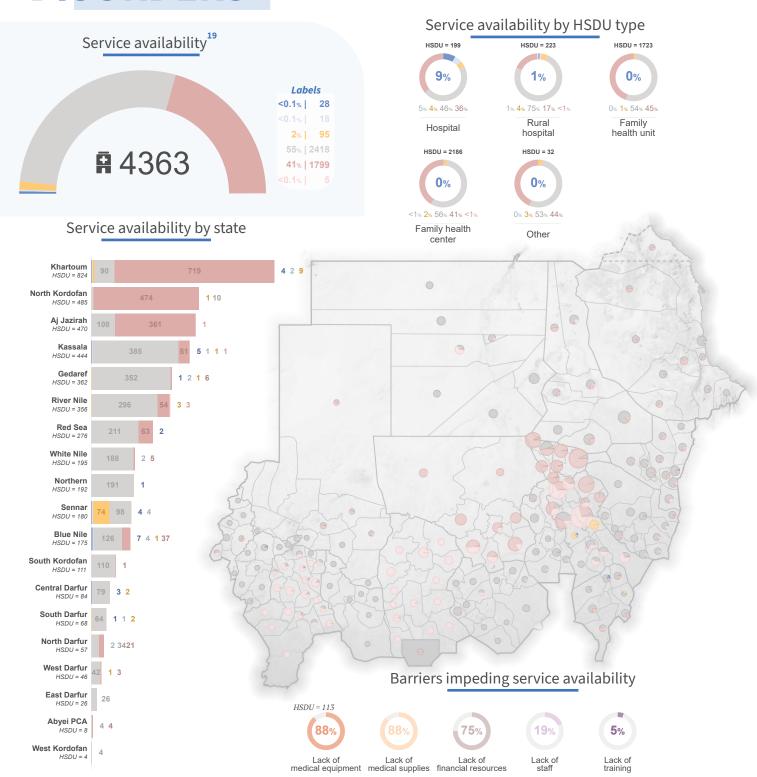




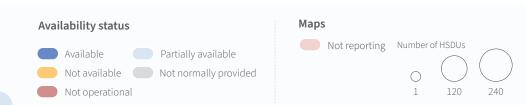




# INPATIENT CARE FOR MENTAL **DISORDERS**



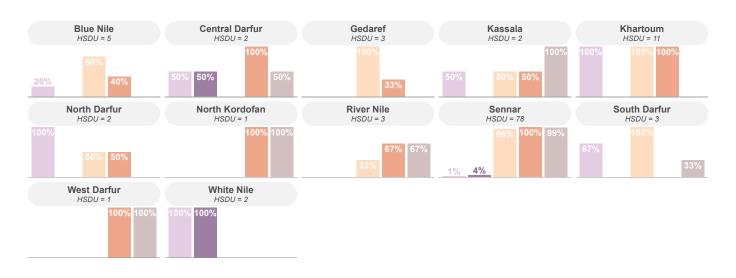
19 Inpatient management of mental disorders by specialized and/or trained and supervised non-specialized healthcare providers.

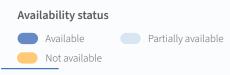




### Service availability by HSDU type and state\*





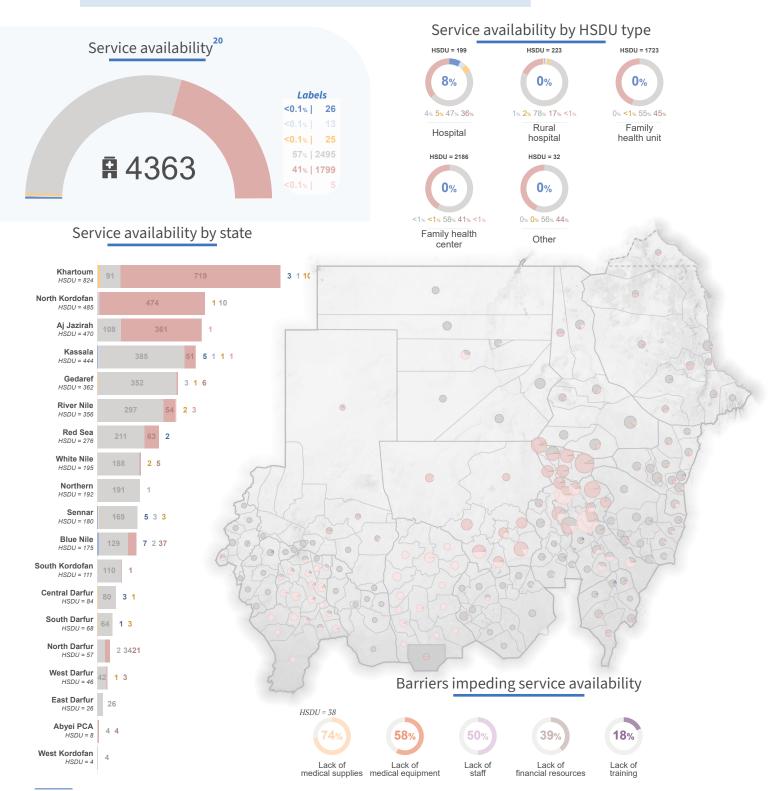








# **INPATIENT CARE FOR MENTAL DISORDERS BY SPECIALISTS**

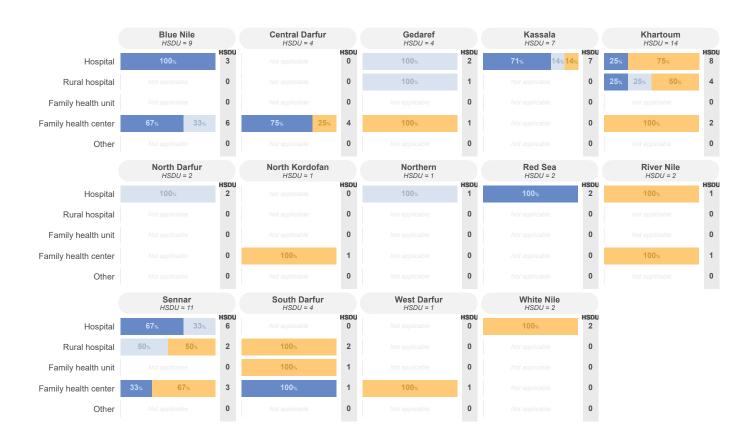


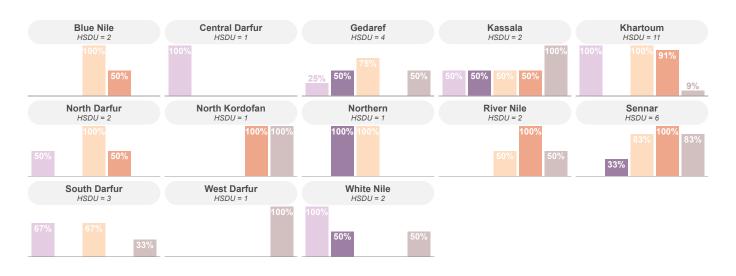
20 Inpatient care for management of mental disorders by specialized and/or trained and supervised non-specialized health-care providers.

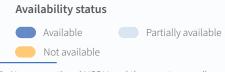




# Service availability by HSDU type and state\*













# ANNEX





# **ANNEX I: POPULATION ESTIMATES**

State	Population estimates
KHARTOUM	5 941 286
AJ JAZIRAH	5 124 749
SOUTH DARFUR	3 895 007
NORTH DARFUR	3 461 818
NORTH KORDOFAN	3 444 769
WHITE NILE	3 392 274
GEDAREF	3 091 393
KASSALA	2 718 540
WEST KORDOFAN	2 612 654
SENNAR	2 532 326
EAST DARFUR	2 390 080
RED SEA	2 035 582
RIVER NILE	1 862 303
NORTHERN	1 446 861
SOUTH KORDOFAN	1 156 469
CENTRAL DARFUR	943 721
BLUE NILE	813 930
WEST DARFUR	618 178
ABYEI PCA	20 480
Grand total	47 502 420



# **ANNEX II: HeRAMS SERVICE DEFINITIONS**

Service	Definition
COMPREHENSIVE COMMUNITY HEALTH SERVICES	Provide basic health care and psychosocial support, identify and refer severe cases for treatment, provide needed follow-up to patients discharged by the HSDU, and provide social services for people with chronic health conditions, disabilities, and mental health problems.
NCD CLINIC	Brief advice on tobacco, alcohol, and substance abuse, healthy diet, screening and management of risks of cardiovascular disease, individual counseling on adherence to chronic therapies, availability of blood pressure apparatus, blood glucose and urine ketones test strips, and essential NCD drugs as per national list.
ASTHMA AND COPD	Asthma and chronic obstructive pulmonary disease classification, treatment, and follow-up.
HYPERTENSION	Hypertension early detection, management, and counseling (including dietary advice), follow-up.
DIABETES	Diabetes early detection, management (oral anti-diabetic and insulin available), counseling (including dietary advice), foot care, and follow-up.
INPATIENT ACUTE REHABILITATION	Inpatient rehabilitation for people with acute injury or illness, delivered by rehabilitation professionals as part of multi-disciplinary acute care, including the provision of assistive devices such as crutches or wheelchairs.
OUTPATIENT OR COMMUNITY LEVEL REHABILITATION SERVICES	Outpatient services provided by a rehabilitation professional via an outpatient service often as part of follow-up care, including assistive device provision or maintenance.
PROSTHETICS AND ORTHOTICS	Manufacture, fitting, and training to use prosthetic and orthotic devices.
ORAL HEALTH AND DENTAL CARE	Oral health and dental care services.
PSYCHOLOGICAL FIRST AID	Psychological first aid for distressed people, survivors of assault, abuse, neglect, domestic violence, and linking vulnerable individuals/families with resources, such as health services, livelihood assistance, etc.
MANAGEMENT OF MENTAL DISORDERS	Management of mental disorders by specialized and/or trained and supervised non-specialized healthcare providers, availability of fluoxetine, carbamazepine, haloperidol, biperiden, and diazepam.
INPATIENT CARE FOR MENTAL DISOR- DERS	Inpatient management of mental disorders by specialized and/or trained and supervised non-specialized healthcare providers.
INPATIENT CARE FOR MENTAL DISOR- DERS BY SPECIALISTS	Inpatient care for management of mental disorders by specialized and/or trained and supervised non-specialized health-care providers.



