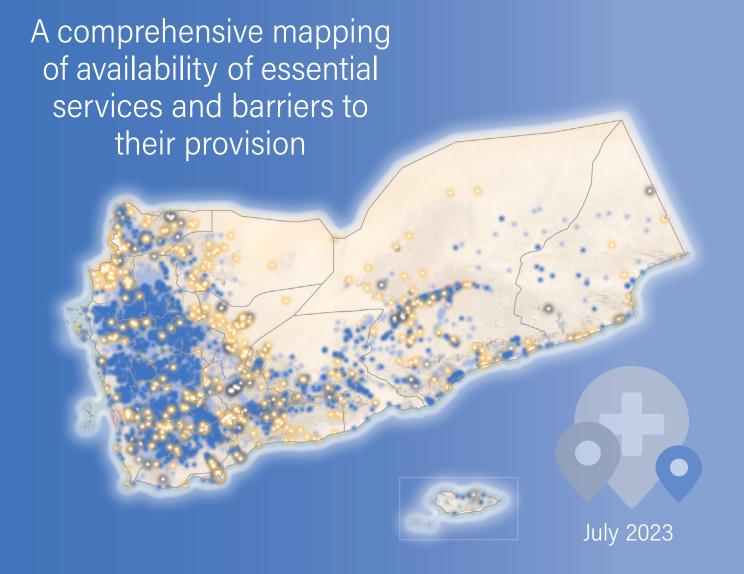
# HeRAMS Yemen Baseline report 2023







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### HeRAMS YEMEN

Baseline report 2023

## General clinical and trauma care services

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

July 2023









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### **A**CRONYMS

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

**HF** Health facility

WHO World Health Organization



### 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 requiring 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 non-governmental organizations (NGOs), 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 Yemen since 2017 and has allowed for the assessment of 5301 health facilities across the country, against 5536 health facilities targeted.

This analysis was produced based on the data collected up to 4 July 2023 and while the deployment of HeRAMS, including data verification and validation, continue. Hence, this analysis is not final and is produced solely for the purposes of informing operations.

This is the second report of the *HeRAMS Yemen baseline report 2023* series focusing on the availability of general clinical and trauma care services. It is a continuation of the first report on the operational status of the health system¹ and should always be interpreted in conjunction with results presented in the first report. Additional reports are available covering (a) child health and nutrition services², (b) communicable disease services³, (c) maternal and newborn services⁴, and (d) non-communicable disease and mental health services⁵.

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>.

<sup>&</sup>lt;sup>1</sup> HeRAMS Yemen baseline report 2023 - Operational status of the health system: A comprehensive mapping of the operational status health facilities, <a href="https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-operational-status-of-the-health-system">https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-operational-status-of-the-health-system</a>.

<sup>&</sup>lt;sup>2</sup> HeRAMS Yemen baseline report 2023 - Child health and nutrition services: A comprehensive mapping of availability of essential services and barriers to their provision, <a href="https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-child-health-and-nutrition-services">https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-child-health-and-nutrition-services</a>.

<sup>&</sup>lt;sup>3</sup> HeRAMS Yemen baseline report 2023 - Communicable disease services: A comprehensive mapping of availability of essential services and barriers to their provision, <a href="https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-communicable-disease-services">https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-communicable-disease-services</a>.

<sup>&</sup>lt;sup>4</sup> HeRAMS Yemen baseline report 2023 - Maternal and newborn services: A comprehensive mapping of availability of essential services and barriers to their provision, <a href="https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-maternal-and-newborn-services">https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-maternal-and-newborn-services</a>.

<sup>&</sup>lt;sup>5</sup> HeRAMS Yemen baseline report 2023 - Non-communicable disease and mental health services: A comprehensive mapping of availability of essential services and barriers to their provision, <a href="https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-ncd-and-mental-health-services">https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-ncd-and-mental-health-services</a>.

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### Part I:

OVERVIEW OF THE AVAILABILITY OF GENERAL CLINICAL AND TRAUMA CARE SERVICES



### How to read the charts

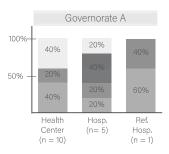
#### Service availability

The first part of the report provides an overview of availability of general clinical and trauma care services. It should be noted that the analysis was limited to operational health facilities. A summary of health facilities assessed and their operational status is available on page 3. Further details on the operational status of health facilities can be found in the first report of the *HeRAMS Yemen baseline report 2023* series.

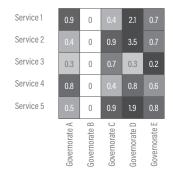
#### Bar chart

Overall availability of the service package is shown disaggregated by governorate and health facility type. The number of health facilities included is displayed below the health facility type name.

It should be noted that the number of services included was limited to health services expected based on national guidelines and depends on the type of health facility. Further details on services included for each type of health facilities is shown in <a href="mailto:annex1">annex I</a>.



#### Service availability per population (heat map)

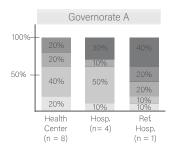


A more detailed overview of availability of individual services is shown as heat maps. Each cell indicates the number of health facilities providing a given service in relation to the catchment population. It should be noted that different catchment areas were used for referral and specialized health services (i.e. provincial vs. regional population estimates). For more details on population estimates, see <u>annex II</u>.

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.

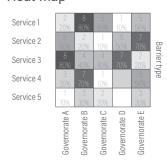
#### Main barriers impeding availability impeding service availability

#### Bar chart



For services not or only partially available, main barriers impeding service delivery are displayed as percentage of all barriers reported. Alike for service availability, bar charts display main barriers were disaggregated by health facility type and governorate. For each health facility type, the total number of barriers reported across the health service domain is indicated below the health facility type name. Note that for each service, up to three barriers could be reported. Hence, the percentages shown in these charts should not be used to make any conclusion on the percentage of health facilities having reported a barrier. For a conclusion on the frequency of health facilities reporting a given barrier, please refer to the heat map below.

#### Heat map



Heat maps provide additional insights on main barriers for individual services by catchment area. Cell opacity levels indicate the percentage of health facilities in the catchment area reporting a given barriers. The integer inside the cell denotes the number of health facilities reporting a given barrier while the percentage indicates the percentage of health facilities reporting the barrier. Note that health facilities not reporting a barrier (i.e. health facilities where the service is fully available or not normally provided) were excluded from these charts.



### Overview of health facilities assessed

Summary of health facilities assessed

targeted health facilities



Closed

health facilities assessed

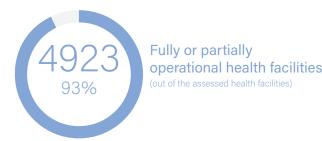


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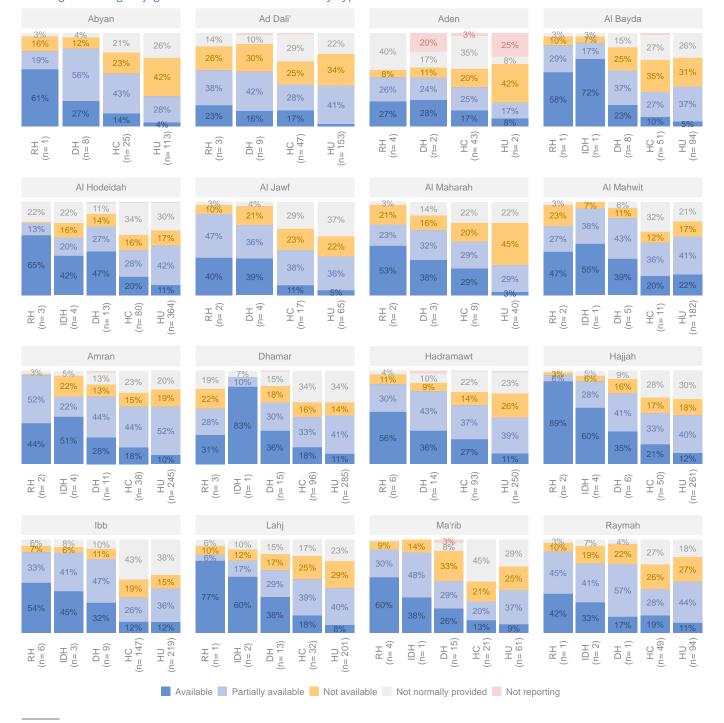


### AVAILABILITY OF SERVICE PACKAGE AND MAIN BARRIERS

#### Package coverage by health facility type<sup>6</sup>



#### Package coverage by governorate and health facility type<sup>6</sup>



<sup>&</sup>lt;sup>6</sup> Number of services included may vary from one health facility type to another. The "Other" HF type has been excluded as it includes very different and specialized HFs. See Annex I for a full description of the services included for each health facility type.



#### Availability of essential services by governorate and health facility type (cont.)



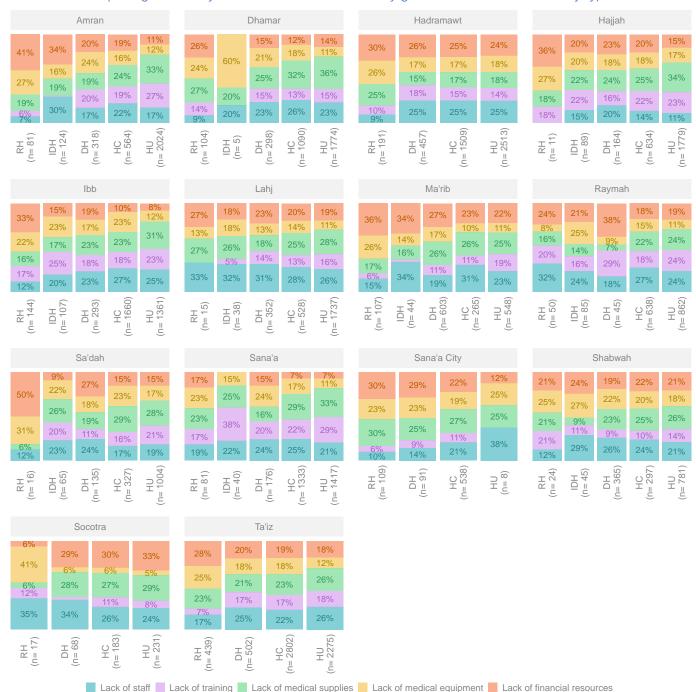
#### Main barriers impeding availability of essential health services by health facility type



#### Main barriers impeding availability of essential health services by governorate and health facility type



#### Main barriers impeding availability of essential health services by governorate and health facility type

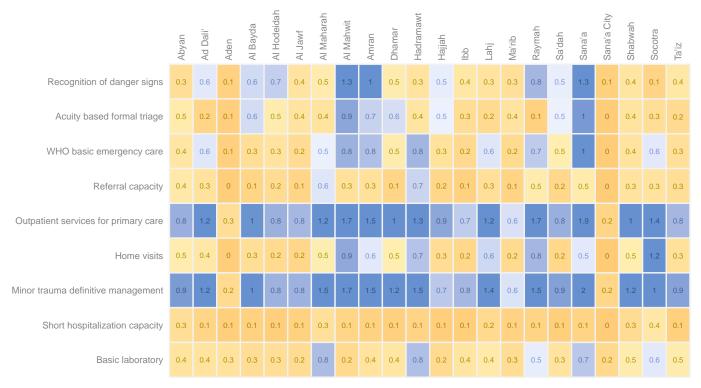




### Service availability by catchment population

Note: While the average number of health facilities providing essential health services per population is a useful metric for high-level comparisons, it is recommended that geospatial accessibility models be developed. By taking into account additional factors such as travel time, these models provide a more accurate reflection of the actual accessibility to and coverage of essential health services.

#### Number of health facilities providing essential community and primary services per 10,000 population<sup>7</sup>

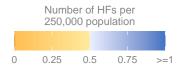




<sup>&</sup>lt;sup>7</sup> Sphere minimum standard: 1 HF per 10,000 population. See annex II for population estimates by governorate and by district.

#### Number of health facilities providing specialized services per 250,000 population<sup>8</sup>

	Abyan	Ad Dali'	Aden	Al Bayda	Al Hodeidah	Al Jawf	Al Maharah	Al Mahwit	Amran	Dhamar	Hadramawt	Hajjah	qqI	Lahj	Ma'rib	Raymah	Sa'dah	Sana'a	Sana'a City	Shabwah	Socotra	Ta'iz
Request for ambulance services by the patient	4.6	3.5	1.6	5.7	2.3	3.2	9.7	9.3	2	2.4	7.8	2.5	2.2	3.4	2.3	1.5	1.6	8.8	0.4	3.7	8.6	3.3
WHO basic emergency care by prehospital provider	8.4	7.3	1.8	8.3	4.2	3.6	12.3	16.9	8.7	5.3	20.8	5.3	3.3	11.3	4.5	2.7	5.8	16.4	0.4	7.1	10.4	5.7
Advanced Syndrome based management	4.2	1.6	0.2	1.4	1.1	2.6	4.5	2	3	1.4	2.7	0.9	0.8	4.1	2.2	2.3	1.4	2.9	0.3	2.5	1.7	1.7
Monitored referral	15.3	4.6	2.1	6.1	3.4	3.4	13.5	9.8	8.5	2.4	18.3	4.3	2.7	12.1	3.8	2.5	4	14.4	0.7	12	12.1	5.4
Acceptance of referrals	6.1	7	1.7	6.3	6.1	2.6	8.4	16	10.4	3	7.6	5	2.9	4.9	4.5	3.8	4.1	13.4	0.7	8.5	6.9	4.5
Acceptance of complex referrals	2.3	1	0.3	1.7	1.1	1.8	2.6	1.2	2	0.8	1.9	1.2	0.8	2.2	2.2	1.1	1	2.1	0.4	3.5	3.5	1.2
Outpatient department for secondary care	6.1	6.5	5.7	5.4	5.5	3.2	9	3.4	6.2	3.5	10.6	3.2	2.8	5.8	4.2	3.4	5.8	7.6	3.2	6.9	27.6	6.9
Emergency and elective surgery	3.1	1.7	0.9	0.9	0.8	2	2.6	1.4	1.3	0.9	1.7	0.9	0.9	2	2	1.1	1	2.2	0.5	2.3	3.5	1.4
Emergency and elective surgery with at least two operating theatres	2.1	0.9	0.7	0.9	0.6	0.8	2.6	1.1	1	0.4	1.2	0.8	0.5	0.9	1.6	0.4	0.7	1.4	0.4	1.6	1.7	0.6
Orthopedic/trauma ward	0.8	0.3	0.7	0.2	0.3	0.6	2.6	0.5	0.2	0.2	0.7	0.4	0.3	0.7	1	0.2	0.4	0.5	0.2	0.9	1.7	0.3
20 Inpatient bed capacity	3.6	2.4	1	2.2	1.4	2	5.2	1.9	1.8	0.9	2.7	1.1	1.2	3.1	1.7	1.5	1.6	2.6	0.8	3.4	5.2	1.7
50 inpatient bed capacity	1.9	0.7	0.7	0.6	0.6	0.8	3.2	1.1	0.6	0.4	1.3	0.8	0.7	0.7	1	0.4	0.7	1.3	0.6	1.6	1.7	0.5
Inpatient critical care management	1	0.6	0	0.2	0.4	1	0.6	0.8	0.6	0.1	0.6	0.4	0.1	0.6	0.9	0	0.2	1.2	0.3	0.5	0	0.2
Intensive care unit	1.2	0.6	0.6	0.9	0.5	0.6	2.6	0.8	0.8	0.3	1.1	0.6	0.7	0.4	1.7	0.4	0.6	1.4	0.5	1.1	1.7	0.7
Laboratory services secondary level	5.2	4.2	5.3	3.2	3.7	4.2	10.3	2.3	6.3	4.8	11.6	3.3	3.8	5.9	3.7	4	5.8	7.2	3.8	9.4	8.6	6.8
Laboratory services tertiary level	0.4	0.6	1	0.9	0.9	0.6	1.3	1.1	1.1	0.5	1.6	0.8	0.5	0.4	1.2	0.2	1.2	0.8	0.6	1.4	1.7	0.4
Blood bank services	1	0.4	1.5	0.5	0.9	0.6	3.9	1.7	2	0.3	1.8	0.8	0.7	1.4	1.7	0.2	1.5	1.9	0.6	1.6	3.5	0.8
Hemodialysis unit	0	0	0.4	0	0.4	0	1.3	0.6	0.2	0.1	0.7	0.3	0.2	0	0.7	0	0.5	0.4	0.3	2.8	1.7	0.3
Basic X ray service	2.9	1.6	5.1	2	2.3	3.2	6.4	2.8	4.8	3.3	5.8	2.1	2.7	3.1	3	2.3	3.4	6	3.3	3.9	3.5	3.6
Radiology unit	0.8	0.4	0.7	0.3	0.3	0.6	1.3	0.6	0.9	0.4	0.8	0.4	0.4	0.4	0.9	0.6	0.5	0.8	0.5	0.9	1.7	0.3
Medical evacuation procedures	1.5	0.4	0.6	0.3	0.8	0.4	0.6	0.5	0.6	0.2	1	0.6	0.5	0.4	1.3	0.2	1	0.9	0.3	1.6	1.7	0.5
Procedures for mass casualty scenarios	1.3	0.4	0.6	0.6	0.4	0.6	1.3	1.1	0.8	0.2	1.4	0.7	0.6	1	1.4	0.4	1.2	1	0.2	1.1	1.7	0.6



<sup>8</sup> Sphere minimum standard: 1 hospital per 250,000 population. See annex II for population estimates by governorate and by district.

### Main barriers impeding service delivery

Main barriers impeding availability of essential community and primary health services by governorate

		1	Abyar	n			А	d Da	li'				Aden				Al	Bayo	da			Al F	lodeid	lah	
Recognition of danger signs	27	18	25	10	29	27	68	56	50	43	18	11	13	3	10	65	62	53	47	30	69	177	103	87	56
	66%	44%	61%	24%	71%	27%	68%	56%	50%	43%	90%	55%	65%	15%	50%	59%	56%	48%	43%	27%	27%	69%	40%	34%	22%
Acuity-based formal triage	28	21	19	7	37	14	42	20	10	44	22	13	13	7	12	73	70	36	28	28	79	111	33	22	30
	62%	47%	42%	16%	82%	25%	75%	36%	18%	79%	85%	50%	50%	27%	46%	67%	64%	33%	26%	26%	45%	63%	19%	12%	17%
WHO basic emergency care	69 65%	40 38%	67 63%	27 25%	76 72%	38 22%	124 73%	106 63%	66 39%	102 60%	27 93%	16 55%	15 52%	8 28%	16 55%	65 60%	53 49%	61 56%	55 50%	31 28%	67 28%	137 57%	161 67%	60	63 26%
Referral capacity	63	26	44	49	84	21	48	36	105	119	22	9	15	9	16	36	26	31	71	33	32	42	52	119	78
	58%	24%	40%	45%	77%	14%	33%	24%	71%	81%	85%	35%	58%	35%	62%	41%	30%	36%	82%	38%	17%	22%	28%	64%	42%
Outpatient services for primary care	65	30	110	22	83	62	60	152	22	124	21	11	19	3	8	67	38	105	25	33	80	116	306	38	73
	52%	24%	88%	18%	66%	36%	35%	88%	13%	72%	88%	46%	79%	12%	33%	59%	33%	92%	22%	29%	24%	35%	93%	12%	22%
Home visits	96	32	56	31	107	66	87	96	38	109	22	10	8	8	21	72	42	59	39	42	124	163	147	59	69
	76%	25%	44%	24%	84%	41%	54%	60%	24%	68%	85%	38%	31%	31%	81%	69%	40%	56%	37%	40%	44%	58%	52%	21%	24%
Minor trauma definitive management	69 61%	24 21%	92 81%	20 18%	81 71%	47 28%	69 41%	138 83%	39 23%	113 68%	20 91%	8 36%	20	5 23%	4 18%	55 49%	36 32%	106 95%	28 25%	38 34%	68 23%	86 29%	277 93%	45	72 24%
Short hospitalization capacity	22 54%	7 17%	32 78%	27 66%	13 32%	12 50%	9 38%	17 71%	6 25%	22 92%	4 80%		3 60%	2 40%	2 40%	7 70%	1 10%	7 70%	5 50%	4 40%	5 29%	3 18%	5 29%	15 88%	2 12%
Basic laboratory	26	9	25	17	34	13	14	21	20	27	21	2	19	8	15	44	6	33	38	20	23	16	51	39	33
	60%	21%	58%	40%	79%	32%	35%	52%	50%	68%	84%	8%	76%	32%	60%	77%	11%	58%	67%	35%	28%	20%	62%	48%	40%
		A	II Jaw	vf			Al N	Maha	rah			Al	Mah	wit			A	mrar	n			D	hama	r	
Recognition of danger signs	25	30	28	13	16	6	6	5	2	9	36	81	48	16	11	66	166	110	47	37	112	102	133	43	52
	50%	60%	56%	26%	32%	55%	55%	45%	18%	82%	31%	70%	42%	14%	10%	30%	75%	50%	21%	17%	51%	46%	60%	20%	24%
Acuity-based formal triage	22 49%	31 69%	12 27%	5 11%	25 56%	7 64%	4 36%	6 55%		6 55%	32 46%	56 81%	16 23%	7 10%	3 4%	101 48%	136 64%	49 23%	22 10%	55 26%	86 56%	73 48%	82 54%	11 7%	24 16%
WHO basic emergency care	27	27	33	15	17	30	14	23	5	24	37	96	104	46	6	81	144	142	41	47	112	109	175	47	72
	56%	56%	69%	31%	35%	68%	32%	52%	11%	55%	26%	66%	72%	32%	4%	37%	66%	65%	19%	21%	43%	42%	68%	18%	28%
Referral capacity	9	6	5	24	26	22	11	11	17	32	9	25	10	87	45	31	59	32	128	64	40	36	24	114	50
	27%	18%	15%	73%	79%	47%	23%	23%	36%	68%	7%	20%	8%	71%	37%	17%	33%	18%	72%	36%	27%	25%	16%	78%	34%
Outpatient services for primary care	27	28	60	7	20	21	5	24	7	31	25	59	108	13	7	88	80	204	31	47	94	42	258	24	63
	43%	44%	95%	11%	32%	62%	15%	71%	21%	91%	22%	52%	95%	11%	6%	40%	36%	92%	14%	21%	34%	15%	92%	9%	23%
Home visits	25	34	41	18	16	36	9	18	18	40	29	37	52	10	10	115	104	105	37	64	117	70	127	24	54
	46%	63%	76%	33%	30%	77%	19%	38%	38%	85%	39%	49%	69%	13%	13%	57%	52%	52%	18%	32%	57%	34%	62%	12%	26%
Minor trauma definitive management	24	27	56	5	20	22	8	30	6	39	10	47	101	16	8	47	82	175	31	58	60	34	162	40	52
	41%	46%	95%	8%	34%	55%	20%	75%	15%	98%	9%	43%	93%	15%	7%	23%	41%	88%	16%	29%	31%	18%	84%	21%	27%
Short hospitalization capacity	14 82%		13 76%	4 24%	15 88%	7 70%	4 40%	7 70%	1 10%	4 40%	1 12%	1 12%	1 12%	7 88%	2 25%	4 40%	2 20%	9	2 20%	6 60%	3 21%	2 14%	6 43%	5 36%	7 50%
Basic laboratory	17	5	17	14	20	33	10	15	5	31	26	2	16	25	3	33	19	36	28	21	63	7	56	59	58
	59%	17%	59%	48%	69%	87%	26%	39%	13%	82%	81%	6%	50%	78%	9%	54%	31%	59%	46%	34%	54%	6%	48%	51%	50%
		На	dram	awt			ŀ	Hajjal	ì				lbb					Lahj				ľ	√a'rib		
Recognition of danger signs	72	46	38	39	64	49	135	95	72	48	89	132	92	57	9	27	22	18	13	19	39	37	35	16	33
	72%	46%	38%	39%	64%	24%	67%	47%	36%	24%	44%	66%	46%	28%	4%	53%	43%	35%	25%	37%	59%	56%	53%	24%	50%
Acuity-based formal triage	63	46	35	29	63	28	118	55	20	42	65	113	43	30	37	23	22	6	4	24	30	26	30	10	27
	69%	51%	38%	32%	69%	19%	80%	37%	14%	28%	45%	79%	30%	21%	26%	64%	61%	17%	11%	67%	57%	49%	57%	19%	51%
WHO basic emergency care	169	115	127	118	148	44	124	122	65	53	90	98	84	48	34	118	106	121	28	76	36	33	40	20	32
	68%	46%	51%	47%	59%	23%	65%	64%	34%	28%	52%	57%	49%	28%	20%	58%	52%	60%	14%	38%	58%	53%	65%	32%	52%
Referral capacity	152	78	59	174	185	18	43	37	117	72	37	39	12	69	46	76	46	42	137	82	18	11	15	27	28
	60%	31%	23%	68%	73%	12%	28%	24%	77%	47%	39%	41%	12%	72%	48%	37%	23%	21%	67%	40%	44%	27%	37%	66%	68%
Outpatient services for primary care	152 63%	81 33%	166 69%	81 33%	141 58%	35 20%	47 27%	168 96%	45 26%	61 35%	132 48%	105 38%		59 21%	48 17%	104 54%	55 29%	168 88%	15 8%	78 41%	38 67%	14 25%	49 86%	9 16%	34 60%
Home visits	215	139	100	155	212	58	97	87	28	57	110	115	94	47	44	160	81	112	27	92	48	31	36	19	49
	70%	45%	33%	50%	69%	34%	57%	51%	17%	34%	58%	61%	50%	25%	23%	75%	38%	52%	13%	43%	66%	42%	49%	26%	67%
Minor trauma definitive management	120	61	141	81	124	40	67	202	32	60	90	61	188	51	36	79	34	124	26	71	26	18	44	15	29
	59%	30%	69%	40%	60%	18%	31%	93%	15%	28%	42%	28%	87%	24%	17%	49%	21%	77%	16%	44%	46%	32%	79%	27%	52%
Short hospitalization capacity	11 92%	4 33%	6 50%	3 25%	6 50%	6 22%	9	10 37%	14 52%	17 63%	30 94%	28 88%	24 75%	6 19%	4 12%	21 81%	8 31%	17 65%	5 19%	12 46%	7 70%	3	8 80%	4 40%	7 70%
Basic laboratory	151 72%	57	89	127 60%	160	17	13	34 52%	38	33	87 56%	17	48 31%	111	53	51 71%	10 14%	51	13	28	23	8	26 65%	18	30
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#### Main barriers impeding availability of essential community and primary health services by governorate (cont.)

		R	ayma	ah			5	Sa'da	h			5	Sana'	а			Sa	na'a (	City			Sh	nabwa	ah	
Recognition of danger signs	37	52	25	15	16	40	66	44	50	24	97	165	135	43	22	18	14	21	17	18	20	20	16	15	9
	51%	72% 33	35% 19	21%	22% 38	38%	62% 58	42% 16	47% 20	23% 16	43% 96	73% 162	59% 82	19%	10% 35	50%	39%	58%	47% 5	50%	56%	56% 23	8	42% 10	25%
Acuity-based formal triage	56%	40%			46%		69%	19%	24%	19%	42%		36%	5%	15%	30%	70%		22%	61%	54%	56%		24%	27%
WHO basic emergency care	70 56%	76 61%	61 49%	15 12%	42 34%	33 31%	67 63%	67 63%	52 49%	22 21%	93 38%	168 69%	190 78%	46 19%	22 9%	11 38%	10 34%	18 62%	15 52%	20 69%	41 63%	21 32%	38 58%	20 31%	19 29%
Referral capacity	31 29%	36 34%	18 17%	61 58%	53 50%	16 27%	20 34%	22 37%	43 73%	26 44%	38 21%	52 29%	37 21%	153 85%	31 17%	4 17%	7 30%	5 22%	18 78%	15 65%	37 44%	22 26%	20 24%	56 67%	36 43%
Outpatient services for primary care	49 60%	28 34%	63 77%	12 15%	25 30%	50 45%	38 34%	101 91%	29 26%	44 40%	61 40%	42 28%	141 93%	5 3%	27 18%	16 55%	2 7%	26 90%	10 34%	16 55%	44 42%	27 26%	91 88%	26 25%	51 49%
Home visits	67 58%	59 51%	39 34%	35 30%	65 56%	43 64%	34 51%	35 52%	18 27%	25 37%	106 50%	127 60%	103 49%	12 6%	34 16%	11 44%	10 40%	15 60%	6 24%	15 60%	50 52%	30 31%	29 30%	43 44%	60 62%
Minor trauma definitive management	33 34%	42 43%	82 84%	7 7%	32 33%	45 44%	33 32%	91 89%	30 29%	56 55%	41 28%	70 48%	138 95%	7 5%	26 18%	6 24%	1 4%	24 96%	3 12%	8 32%	38 39%	29 30%	75 77%	30 31%	49 50%
Short hospitalization capacity	3 75%		2 50%	2 50%	4 100%	3 100%		3 100%		3 100%	1 33%		2 67%	3 100%	2 67%	1 100%		1 100%	1 100%		4 50%		6 75%	6 75%	4 50%
Basic laboratory	35 66%	14 26%	18 34%	26 49%	22 42%	33 52%	16 25%	39 61%	38 59%	27 42%	64 70%	10 11%	37 41%	67 74%	19 21%	3 60%		3 60%	3 60%	3 60%	15 38%	5 13%	23 59%	17 44%	18 46%
		S	Socotr	a				Ta'iz																	
Recognition of danger signs	6 75%	3 38%	7 88%		8 100%	135 51%	158 60%	75 28%	61 23%	77 29%															
Acuity-based formal triage	6 75%	3 38%	6 75%	1 12%	8 100%	108 45%	149 62%	36 15%	44 18%	75 31%															
WHO basic emergency care	19 76%	8 32%	20 80%	2 8%	23 92%	184 50%	159 44%	189 52%	110 30%	156 43%															
Referral capacity	19 79%	4 17%	17 71%	6 25%	23 96%	95 27%	72 21%	51 15%	262 76%	159 46%															
Outpatient services for primary care	14 74%	7 37%	19 100%		17 89%	163 44%	110 30%	321 87%	45 12%	128 35%															
Home visits	13 57%	7 30%	19 83%	7 30%	22 96%	247 65%	169 44%	158 42%	66 17%	160 42%															
Minor trauma definitive management	17 77%	5 23%	21 95%	3 14%	20 91%	121 39%	81 26%	265 85%	53 17%	127 41%															
Short hospitalization capacity	3 100%		2 67%	1 33%	3 100%	31 78%	3 7%	33 82%	12 30%	34 85%															
Basic laboratory	19 79%	6 25%	21 88%	5 21%	21 88%	57 44%	19 15%	72 55%	71 55%	55 42%															
% of F	HFs r	epor	ting	a baı	rrier				Тур	e of b	arrie	r													
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		A	Abyaı	n			А	d Da	li'				Aden				Al	Bay	da			Al F	lodei	dah	
Request for ambulance services	25	11	21	23	39	6	17	11	38	45	19	9	10	15	15	39	29	29	59	23	55	24	26	113	53
by the patient WHO basic emergency care by	72	41	45% 67	49%	77	12%	33% 88	52	75% 59	96	76%	13	40%	6	11	49% 53	37% 52	37% 48	75% 46	29%	40%	17% 68	19%	50	44
prehospital provider  Advanced Syndrome-based	66% 19	38% 13	61%	25% 7	71%	17%	70%	42%	47% 9	77%	96%	54%	58%	25%	46%	56%	55%	51%	49%	23%	30%	50%	47%	37%	33%
management	76%	52%	72%	28%	56%	31%	62%	56%	56%	88%	100%	67%	33%	67%	17%	50%	38%	50%	62%	12%	50%	83%	33%	58%	
Monitored referral	68 67%	35 35%	45 45%	36 36%	81 80%	29 21%	75 55%	36 26%	69 50%	109 80%	19 90%	11 52%	14 67%	5 24%	9 43%	56 63%	45 51%	23 26%	52 58%	26 29%	28 29%	49 51%	37 39%	39 41%	40 42%
Acceptance of referrals	35 80%	17 39%	20 45%	12 27%	34 77%	14 26%	31 57%	22 41%	28 52%	39 72%	20 80%	15 60%	14 56%	3 12%	13 52%	43 56%	41 53%	31 40%	46 60%	18 23%	24 21%	47 42%	44 39%	49 43%	48 42%
Acceptance of complex referrals	20 87%	12 52%	14 61%	7 30%	13 57%	3 27%	7 64%	5 45%	7 64%	10 91%	2 100%	1 50%	1 50%	1 50%	1 50%	5 62%	3 38%	4 50%	6 75%	4 50%	5 71%	6 86%	2 29%	2 29%	2 29%
Outpatient department for secondary care	36 72%	7 14%	38 76%	17 34%	36 72%	20 39%	20 39%	41 80%	12 24%	37 73%	24 96%	7 28%	22 88%	2 8%	15 60%	51 74%	18 26%	52 75%	25 36%	22 32%	64 49%	37 28%	105 80%	16 12%	39 30%
Emergency and elective surgery	25 76%	14 42%	25 76%	7 21%	21 64%	8 47%	9	9 53%	6 35%	14 82%	2 50%	1 25%	2 50%	2 50%	4 100%	9		8	4 40%	1	10 77%	4 31%	10 77%	5 38%	2
Emergency and elective surgery with at least two operating	12 86%	2 14%	13 93%	3 21%	12 86%	4 50%	3	4 50%	2	6 75%	2 67%	1 33%	2 67%	0070	2 67%	4 80%		3 60%	3 60%	1070	6	4 40%	6	4 40%	2
theatres Orthopedic/trauma ward	15	3	15	2	11	4	3	3	4	6	2	2	1	1	3	6		4	3		5	3	7	4	3
	94%	19%	94%	12% 11	69% 8	50% 3	38%	38%	50% 7	75% 10	67%	67%	33%	33%	100% 3	100%		67% 4	50%	3	50%	30%	70% 5	40% 5	30%
20 Inpatient bed capacity	67% 9	20%	47% 5	73% 5	53%	25%	42%	67%	58%	83%	60%	20%	40%	80%	60%	71%		57%	71%	43%	44%	33%	56%	56% 3	33%
50 inpatient bed capacity	82%	18%	45%	45%	64%	20%		60%		100%	100%		50%		100%	100%			100%	50%	67%	33%	56%	33%	
Inpatient critical care management	11 85%	1 8%	9 69%	3 23%	8 62%	2 25%	3 38%	4 50%	4 50%	7 88%	1 100%	1 100%			1 100%	2 100%		2 100%	1 50%		4 44%	4 44%	5 56%	6 67%	2 22%
Intensive care unit	6 75%	1 12%	5 62%	4 50%	6 75%	3 30%	4 40%	4 40%	8 80%	8 80%	1 25%	1 25%	4 100%	2 50%	2 50%	4 100%		2 50%	3 75%		7 70%	1 10%	4 40%	8 80%	4 40%
Laboratory services secondary level	27 71%	5 13%	21 55%	22 58%	29 76%	9 20%	16 36%	25 56%	20 44%	37 82%	26 87%	5 17%	23 77%	9 30%	19 63%	38 72%	3 6%	35 66%	31 58%	21 40%	13 26%	13 26%	25 50%	22 44%	21 42%
Laboratory services tertiary level	12 75%	5 31%	9 56%	4 25%	13 81%	2 20%	6	4 40%	4 40%	8 80%	4	3 33%	6 67%	3 33%	7 78%	6 75%	2 25%	5 62%	8 100%	3	4 25%	3 19%	9 56%	7 44%	11 69%
Blood bank services	13 68%	2	12 63%	10 53%	17 89%		5 45%	4 36%	6 55%	9 82%	1 25%		4	2 50%	2 50%	6 86%		6 86%	5 71%	1 14%	2	3	9 53%	9	11 65%
Hemodialysis unit	7	4	7	6	6	1	1	2	1	3	2		1	30 /0	2	4		2	4	1	3	1070	3	1	3
Basic X-ray service	70%	40%	70% 16	60% 21	60% 24	33% 14	33% 10	10	33% 28	100% 30	100% 25	10	50% 20	13	100% 14	100% 44	5	50% 18	100% 42	22	75% 34	8	75% 14	40	75% 18
•	72% 11	31%	44% 5	58% 12	9	38%	27% 3	27%	76% 4	81%	78%	31%	62%	41%	44%	85%	10%	35% 4	81%	2	59%	14%	24%	69% 9	31% 7
Radiology unit	73%	27%	33%	80%	60%	43%	43%	14%		100% 3	40%	4	80%	40%	80%	73%	18%	36%	100%	18%	36%	9%	36%	82%	
Medical evacuation procedures	9 64%	4 29%	10 71%	5 36%	10 71%		2 67%		3 100%	100%	3 75%	1 25%	1 25%	2 50%	3 75%	33%	3 100%		3 100%		33%	33%	1 33%	3 100%	33%
Procedures for mass casualty scenarios	10 71%	1 7%	13 93%	6 43%	9 64%	2 29%	2 29%	3 43%	7 100%	5 71%	1 50%	1 50%	1 50%	1 50%	1 50%	2 50%	2 50%		3 75%	1 25%	3 43%	3 43%	1 14%	4 57%	2 29%
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		F	Al Jav	vf			Al N	Maha	rah			Al	Mah	wit			P	Amrai	n			D	hama	ar	
Request for ambulance services by the patient	8 27%	12 40%	10 33%	24 80%	22 73%	4 33%	3 25%	4 33%	8 67%	6 50%	14 15%	11 12%	16 17%	56 59%	37 39%	15 12%	61 50%	23 19%	88 72%	38 31%	35 33%	28 26%	26 24%	73 68%	27 25%
WHO basic emergency care by prehospital provider	20 54%	15 41%	17 46%	22 59%	19 51%	28 64%	21 48%	16 36%	7 16%	26 59%	30 33%	53 58%	53 58%	28 31%	3 3%	58 38%	103 68%	61 40%	39 26%	37 24%	74 50%	61 41%	79 53%	46 31%	39 26%
Advanced Syndrome-based management	5 83%	3 50%	4 67%	2 33%	3 50%	5 56%	3 33%	7 78%	5 56%	4 44%	5 42%	8 67%	5 42%	4 33%	2 17%	10 48%	15 71%	13 62%	3 14%	5 24%	4 31%	6 46%	9 69%	4 31%	3 23%
Monitored referral	15 48%	14 45%	6 19%	19 61%	18 58%	31 69%	18 40%	11 24%	12 27%	23 51%	41 48%	35 41%	20 24%	38 45%	6 7%	70 46%	65 43%	34 22%	64 42%	53 35%	42 39%	51 47%	25 23%	55 51%	34 31%
Acceptance of referrals	14 52%	11 41%	13 48%	10 37%	15 56%	6 60%	4 40%	5 50%	1 10%	5 50%	23 32%	41 56%	32 44%	36 49%	4 5%	47 34%	78 56%	49 35%	51 37%	40 29%	30 32%	33 35%	22 23%	43 45%	37 39%
Acceptance of complex referrals	6 100%		4 67%	4 67%	4 67%	3 60%	2 40%	1 20%	3 60%	3 60%	7 70%	5 50%	3 30%	6 60%	2 20%	6 55%	6 55%	5 45%	6 55%	4 36%	3 25%	7 58%	6 50%	2 17%	5 42%
Outpatient department for secondary care	14 64%	6 27%	20 91%	4 18%	11 50%	7 70%	2 20%	6 60%	2 20%	9 90%	27 87%	3 10%	18 58%	6 19%	2 6%	46 55%	28 34%	65 78%	10 12%	26 31%	77 75%	13 13%	90 87%	19 18%	16 16%
Emergency and elective surgery	3 60%	1 20%	3 60%	3 60%	4 80%	4 80%	2 40%	3 60%	2 40%	3 60%	7 100%	2 29%	2 29%	4 57%	1 14%	11 79%	2 14%	8 57%	7 50%	6 43%	9 75%	4 33%	9 75%	5 42%	3 25%
Emergency and elective surgery with at least two operating theatres	2 67%		2 67%	1 33%	3 100%	2 100%		2 100%		2 100%	6 86%	1 14%	1 14%	4 57%	3 43%	5 83%	1 17%	5 83%	2 33%	3 50%	5 71%		2 29%	4 57%	5 71%
Orthopedic/trauma ward	4 100%		2 50%	2 50%	4 100%	3 100%		2 67%		3 100%	6 100%	2 33%	1 17%	3 50%	1 17%	5 100%		2 40%	3 60%	3 60%	5 71%	1 14%	4 57%	2 29%	5 71%
20 Inpatient bed capacity	5 71%	1 14%	3 43%	4 57%	7 100%	3 100%	1 33%	2 67%	2 67%	1 33%	4 57%	1 14%		6 86%	4 57%	8 73%	3 27%	7 64%	2 18%	6 55%	5 33%	1 7%	7 47%	8 53%	9 60%
50 inpatient bed capacity	3 75%		3 75%	2 50%	3 75%	2 100%		2 100%		2 100%	7 100%	2 29%	4 57%	3 43%	3 43%	4 67%		2 33%	5 83%	5 83%	4 40%	1 10%	4 40%	5 50%	5 50%
Inpatient critical care management	2 50%	1 25%	3 75%		4 100%	3 100%	2 67%			2 67%	6 86%	2 29%	3 43%	3 43%	2 29%	2 50%		4 100%	1 25%	4 100%	1 25%		1 25%	4 100%	1 25%
Intensive care unit	3 75%		2 50%	2 50%	3 75%	3 100%		2 67%	1 33%	3 100%	5 71%	3 43%	2 29%	6 86%	2 29%	6 86%	2 29%	3 43%	5 71%	3 43%	3 50%		2 33%	5 83%	2 33%
Laboratory services secondary level	10 48%	4 19%	15 71%	8 38%	13 62%	4 40%	1 10%	8 80%	7 70%	8 80%	4 44%		4 44%	7 78%	4 44%	15 38%	8 21%	25 64%	19 49%	20 51%	19 23%	9 11%	62 77%	25 31%	35 43%
Laboratory services tertiary level	3 27%	2 18%	9 82%	7 64%	10 91%	2 67%	1 33%	2 67%		3 100%	1 20%	1 20%	2 40%	4 80%	1 20%	5 38%	3 23%	4 31%	9 69%	11 85%	5 19%	5 19%	13 48%	11 41%	15 56%
Blood bank services	3 60%	2 40%	3 60%	3 60%	3 60%	4 80%		2 40%	2 40%	5 100%			3 75%	3 75%	3 75%	4 31%	4 31%	7 54%	9 69%	9 69%	2 14%	2 14%	6 43%	9 64%	6 43%
Hemodialysis unit	3 100%	1 33%	3 100%		2 67%	3 100%		2 67%	1 33%	3 100%	1 50%	1 50%	1 50%	2 100%	1 50%	2 50%	1 25%	2 50%	3 75%	3 75%	3 75%	1 25%		3 75%	1 25%
Basic X-ray service	22 81%	2 7%	8 30%	22 81%	7 26%	7 58%	5 42%	8 67%	3 25%	8 67%	13 76%		5 29%	14 82%	2 12%	28 74%	5 13%	6 16%	26 68%	15 39%	74 84%	4 5%	31 35%	68 77%	27 31%
Radiology unit	5 71%	2 29%	4 57%	5 71%	3 43%	3 75%	1 25%	3 75%	1 25%	4 100%	3 43%	2 29%	2 29%	5 71%	4 57%	10 62%	4 25%	3 19%	12 75%	11 69%	6 60%	2 20%	3 30%	6 60%	4 40%
Medical evacuation procedures	3 60%	1 20%		5 100%	5 100%	3 100%	1 33%	2 67%	1 33%	2 67%	1 20%	3 60%	1 20%	4 80%	2 40%	4 50%	2 25%	4 50%	5 62%	5 62%	2 67%	1 33%		3 100%	
Procedures for mass casualty scenarios	4 80%	2 40%	1 20%	3 60%	4 80%	3 100%		2 67%		3 100%	3 50%	5 83%	3 50%		1 17%	4 50%	3 38%	4 50%	5 62%	4 50%	2 29%	2 29%	2 29%	4 57%	1 14%
% of ⊦ ■ 1%			_			5%	100	%	Ту	Lack Lack	of sta	aff ining	,	plies	L					ipmen ources					



		На	drama	awt			ŀ	Hajjal	h				lbb					Lahj				ľ	√a'rib	1	
Request for ambulance services by the patient	71 64%	38 34%	31 28%	60 54%	86 77%	14 13%	43 40%	38 35%	71 66%	44 41%	48 49%	51 53%	36 37%	43 44%	44 45%	24 47%	18 35%	9 18%	32 63%	26 51%	11 28%	15 38%	17 42%	27 68%	29 72%
WHO basic emergency care by		116	107 43%	138	142 57%	35 28%	81 64%	57 45%	50	33 26%	64 44%	83	75 51%	45	36	98 55%	101	94 53%	43	70 39%	33 61%	23	32	23	33 61%
Advanced Syndrome-based	13	17	13	8	12	5	7	8	2	2	8	12	9	7	9	14	13	15	6	11	16	10	19	11	13
management  Monitored referral	167	99	59% 75	36% 149	55% 154	45% 23	64%	73% 26	18% 63	18% 34	44% 62	67% 86	50% 38	39% 54	50% 36	52% 88	48% 75	56% 54	76	71	28	25	76% 18	44% 25	52% 33
	68% 67	40% 50	30%	61% 39	63%	21% 15	56% 55	23% 35	56% 61	30% 45	48%	66% 75	29% 41	42% 39	28%	51%	43% 23	31%	44% 11	41% 27	54% 17	48% 14	35% 17	48% 17	63% 17
Acceptance of referrals  Acceptance of complex	69% 9	52% 15	33%	40%	68%	15%	54%	34%	60%	44%	39%	68%	37% 6	35% 4	22%	53%	53% 6	47% 5	26%	63%	53%	44% 6	53% 17	53% 15	53% 15
referrals	53%	88%	24%	47%	65%	75%	50%	50%	50%		50%	79%	43%	29%	43%	55%	55%	45%	9%	55%	41%	27%	77%	68%	68%
Outpatient department for secondary care	91 83%	32 29%	62 56%	43 39%	70 64%	43 67%	20 31%	43 67%	15 23%	22 34%	83 74%	26 23%	77 69%	18 16%	35 31%	35 76%	20 43%	31 67%	6 13%	24 52%	25 83%	6 20%	23 77%	7 23%	20 67%
Emergency and elective surgery	16 89%	5 28%	11 61%	6 33%	14 78%	5 56%	2 22%	5 56%	4 44%	4 44%	15 88%	2 12%	8 47%	7 41%	11 65%	12 86%	6 43%	7 50%	1 7%	8 57%	18 60%	8 27%	22 73%	20 67%	13 43%
Emergency and elective surgery with at least two operating	5 62%		3 38%	6 75%	7 88%	2 33%	1 17%	3 50%	4 67%	3 50%	8 73%	3 27%	7 64%	7 64%	5 45%	4 100%	1 25%	2 50%	2 50%	3 75%	5 45%	2 18%	11 100%	6 55%	7 64%
theatres Orthopedic/trauma ward	11 79%	4 29%	6 43%	5 36%	10 71%	7 88%	2 25%	3	4 50%	4 50%	6 50%	5 42%	7	5 42%	5 42%	7 100%		5 71%	1 14%	5 71%	8 73%	3 27%	6 55%	5 45%	7 64%
20 Inpatient bed capacity	9	2	4	5	8	2	1	3	3	4	4	4270	2	3	3	8	3	4	1	6	6	1	6	6	10
50 inpatient bed capacity	90%	3	40%	50%	80%	29%	14%	43%	43%	57% 3	80%	1	40%	60%	60% 5	80%	30%	40%	10%	60%	50%	8%	50%	50% 7	10
Inpatient critical care	88%	38% 7	38%	50%	75% 7	40%	3	20%	80%	60%	67% 3	17%	33%	67%	83%	100% 7	2	50%	50%	50%	40%		50%	70%	100%
management	64%		36%	55%	64%	40%		60%	60%	40%	38%	12% 5	38%	50%	88%	100%	29%	86%	0	57% 6	43%	0			29%
Intensive care unit	11 79%	8 57%	6 43%	6 43%	10 71%	2 29%	14%	3 43%	5 71%	5 71%	8 80%	_	50%	40%	3 30%	92%	3 25%	_	2 17%	50%	6 67%	2 22%		3 33%	78%
Laboratory services secondary level	52 61%	20 24%	54 64%	45 53%	65 76%	12 27%	14 31%	22 49%	26 58%	19 42%	57 55%	12 12%	25 24%	88 85%	37 36%	26 68%	7 18%	27 71%	9 24%	20 53%	12 41%	8 28%	23 79%	15 52%	25 86%
Laboratory services tertiary level	5 38%	3 23%	6 46%	9 69%	9 69%	7 47%	7 47%	3 20%	10 67%	9 60%	9 50%	2 11%	8 44%	11 61%	8 44%	4 100%		1 25%	3 75%	4 100%	8 53%	3 20%	9 60%	7 47%	12 80%
Blood bank services	12 55%	8 36%	8 36%	16 73%	17 77%	5 38%	4 31%	5 38%	7 54%	10 77%	5 38%	3 23%	7 54%	11 85%	10 77%	10 67%	1 7%	7 47%	8 53%	11 73%	6 50%	3 25%	5 42%	9 75%	8 67%
Hemodialysis unit	5 62%	1	3	5	8	6		1	5	5	4	1	2	4	1	5	2	4	2	1	5	3	7	2	6
Basic X-ray service	67	12% 35	38% 29	57	100% 66	35	14	14%	32	71% 19	100% 133	25% 10	50% 7	100%	53	100%	40%	80%	40% 18	20% 16	62% 21	38%	13	25% 13	75% 13
,	73%	38%	32% 5	62% 12	72% 14	65% 8	26% 7	19%	59% 13	35% 9	84%	6% 4	4% 2	83% 13	34% 9	70%	15%	30%	67% 2	59%	75% 7	29%	46% 6	46%	46% 13
Radiology unit	50% 7	31%	31%	75% 9	88%	38%	33%	10%	62%	43%	65%	24%	12%	76% 5	53%	67%	2	33%	67%	67%	47%	27%	40% 5	53%	87% 12
Medical evacuation procedures	58%	25%	25%	75%	83%	20%	60%	20%	60%	40%	33%	44%	22%	56%	44%	75%	50%	50%	50%		54%	8%	38%		92%
Procedures for mass casualty scenarios	8 57%	8 57%	6 43%	7 50%	10 71%	20%	3 60%	3 60%	3 60%	2 40%	3 43%	4 57%	1 14%	3 43%	3 43%	8 100%	38%	4 50%	3 38%	5 62%	5 31%	7 44%	9 56%	5 31%	12 75%
% of H	lFs r	epor	ting	a ba	rrier				Ту	pe of	barri	er													
1%		25%	5	50% <b> </b>	75	5%	100	%			of sta									ipmen ources					
											of me	_		plies							-				

		R	Rayma	ah			S	Sa'dal	h			5	Sana'	а			Sai	na'a (	City			Sh	nabwa	ah	
Request for ambulance services by the patient	9 17%	9 17%	8 15%	40 77%	35 67%	12 18%	23 35%	9 14%	43 66%	21 32%	44 25%	73 42%	68 39%	129 74%	24 14%	4 22%	5 28%	6 33%	14 78%	12 67%	12 40%	5 17%	6 20%	22 73%	17 57%
WHO basic emergency care by prehospital provider	34 52%	32 48%	21 32%	15 23%	28 42%	21 26%	51 64%	36 45%	35 44%	15 19%	96 42%	151 67%	126 56%	77 34%	25 11%	5 50%	3 30%	4 40%	7 70%	6 60%	44 67%	23 35%	33 50%	23 35%	19 29%
Advanced Syndrome-based management	11 69%	10 62%	4 25%	5 31%	4 25%	1 25%	3 75%	2 50%	1 25%	2 50%	5 38%	8 62%	9 69%	4 31%	1 8%	1 25%	1 25%	4 100%	2 50%	3 75%	11 79%	3 21%	9 64%	4 29%	4 29%
Monitored referral	40 58%	30 43%	17 25%	26 38%	26 38%	17 30%	23 40%	22 39%	39 68%	25 44%	84 42%	113 56%	67 33%	102 51%	18 9%	8 47%	5 29%	7 41%	11 65%	13 76%	43 57%	34 45%	24 32%	24 32%	22 29%
Acceptance of referrals	29 53%	19 35%	23 42%	18 33%	26 47%	11 23%	24 50%	18 38%	36 75%	16 33%	65 41%	101 63%	94 59%	52 32%	16 10%	6 38%	3 19%	7 44%	11 69%	13 81%	21 54%	18 46%	14 36%	14 36%	10 26%
Acceptance of complex referrals	1 11%	5 56%	1 11%	4 44%	4 44%	2 40%	4 80%	1 20%		1 20%	7 47%	11 73%	10 67%	6 40%			1 20%	4 80%	2 40%	5 100%	6 75%	1 12%	5 62%	5 62%	2 25%
Outpatient department for secondary care	33 92%	4 11%	25 69%	6 17%	7 19%	34 68%	15 30%	37 74%	13 26%	21 42%	67 65%	30 29%	76 74%	9 9%	12 12%	21 60%	2 6%	33 94%	3 9%	13 37%	18 62%	5 17%	25 86%	7 24%	12 41%
Emergency and elective surgery	8 89%	3 33%	4 44%	2 22%	7 78%	6 100%	1 17%	3 50%	4 67%	3 50%	10 91%	1 9%	8 73%	7 64%	2 18%	5 83%		5 83%	3 50%	4 67%	10 67%	3 20%	11 73%	9 60%	8 53%
Emergency and elective surgery with at least two operating theatres	2 50%	2 50%	1 25%	2 50%	3 75%	2 50%		3 75%	4 100%	2 50%	7 70%	3 30%	5 50%	6 60%	1 10%	1 25%	1 25%	4 100%	1 25%	4 100%	4 80%	1 20%	2 40%	3 60%	3 60%
Orthopedic/trauma ward	3 75%	2 50%	1 25%	2 50%	3 75%	3 75%			4 100%	2 50%	6 86%	1 14%	4 57%	3 43%	2 29%	2 67%		2 67%	1 33%	1 33%	10 91%	3 27%	7 64%	3 27%	5 45%
20 Inpatient bed capacity	2 40%		2 40%	4 80%	4 80%	3 75%		3 75%	1 25%	2 50%	3 50%	1 17%	2 33%	4 67%	4 67%	1 100%		1 100%		1 100%	6 60%		6 60%	6 60%	7 70%
50 inpatient bed capacity	2 67%	2 67%	2 67%		2 67%	5 100%		1 20%	4 80%	3 60%	5 100%		1 20%	4 80%		3 50%	1 17%	3 50%	4 67%	3 50%	8 89%		3 33%	4 44%	8 89%
Inpatient critical care management	2 100%	2 100%			2 100%		1 33%	2 67%	2 67%	2 67%	3	5 56%	4 44%	5 56%				3 100%	1 33%	3 100%	4 100%	1 25%	4 100%	1 25%	
Intensive care unit	2 67%	1 33%		2 67%	2 67%	2 40%	1 20%	1 20%	5 100%	3 60%	6 67%	1 11%	3 33%	6 67%	3 33%	4 57%	1 14%	4 57%	6 86%	2 29%	6 86%	1 14%	5 71%	3 43%	4 57%
Laboratory services secondary level	25 81%	2 6%	21 68%	14 45%	11 35%	18 50%	6 17%	24 67%	24 67%	22 61%	37 58%	12 19%	17 27%	56 88%	13 20%	3 10%	1 3%	23 74%	22 71%	17 55%	13 41%	3 9%	18 56%	18 56%	18 56%
Laboratory services tertiary level	1 25%	2 50%	2 50%	2 50%	2 50%	2 20%	3 30%	7 70%	8 80%	4 40%	11 65%	2 12%	10 59%	16 94%	2 12%	2 17%		8 67%	7 58%	7 58%	4 57%	3 43%	4 57%	6 86%	3 43%
Blood bank services	4 67%		4 67%	3 50%	2 33%	6 46%	3 23%	6 46%	11 85%	7 54%	7 70%	3 30%	1 10%	8 80%	4 40%	1 17%		3 50%	5 83%	4 67%	5 31%	3 19%	9 56%	13 81%	12 75%
Hemodialysis unit	1 50%			1 50%	2 100%		1 100%	1 100%	1 100%		4 100%	1 25%	1 25%	3 75%	1 25%				1 100%	1 100%	3 100%		2 67%	1 33%	2 67%
Basic X-ray service	33 72%	7 15%	22 48%	19 41%	19 41%	10 43%	6 26%	10 43%	12 52%	10 43%	76 88%	11 13%	11 13%	72 84%	17 20%	25 58%	2 5%	15 35%	38 88%	24 56%	15 68%	1 5%	7 32%	19 86%	13 59%
Radiology unit	6 75%	1 12%	4 50%	4 50%	3 38%	2 22%	4 44%	5 56%	4 44%	5 56%	7 58%	2 17%	3 25%	11 92%	3 25%	5 33%	1 7%	5 33%	12 80%	7 47%	6 86%	1 14%	2 29%	6 86%	4 57%
Medical evacuation procedures	2 67%	1 33%	1 33%	1 33%	2 67%	1 25%	2 50%		1 25%	2 50%	4 57%	4 57%	3 43%	4 57%	1 14%	1 33%	1 33%		3 100%		3 75%			3 75%	3 75%
Procedures for mass casualty scenarios	2 67%	3 100%		3 100%		1 50%	1 50%		1 50%		5 56%	3 33%	1 11%	6 67%	2 22%	1 100%		1 100%	1 100%		7 70%	2 20%	5 50%	5 50%	4 40%
% of ⊦ ■ 1%						5%	100	%	Ту	Lack Lack	barrion of state of tra	aff iining		plies	L					ipmen ources					



		S	Socotr	a				Ta'iz		
Request for ambulance services	7	2	6	1	8	67	70	53	134	109
by the patient WHO basic emergency care by	20	25% 8	75% 22	12% 5	100%	31% 176	32% 158	24% 134	62% 118	50% 155
prehospital provider	77%	31%	85%	19%	88%	53%	47%	40%		46%
Advanced Syndrome-based management	4 100%	1 25%	4 100%		3 75%	35 51%	31 45%	39 57%	18 26%	33 48%
Monitored referral	20	5	19	5	22	167	131	91	137	156
	83%	21%	79%	21%	92%	50%	39% 111	27% 49	41% 67	47% 94
Acceptance of referrals	86%	14%	71%	43%	86%	47%	53%	23%	32%	45%
Acceptance of complex referrals	1 100%			1 100%	1 100%	18 60%	10 33%	9 30%	9 30%	17 57%
Outpatient department for	5		4	1	4	137	36	129	26	56
secondary care	100%		80%	20%	80%	72%	19%	68%	14% 12	29% 15
Emergency and elective surgery  Emergency and elective surgery	100%			100%	100%	76%	24%	64%	36%	45%
with at least two operating theatres	2 100%			1 50%	1 50%	10 77%	1 8%	9 69%	9 69%	3 23%
Orthopedic/trauma ward	2			2 100%	1	11 85%	1	8 62%	8 62%	7 54%
	2		2	100%	2	13	8% 2	13	12	11
20 Inpatient bed capacity	100%		100%		100%	62%	10%	62%	57%	52%
50 inpatient bed capacity	2 100%		1 50%	1 50%	1 50%	7 78%	1 11%	5 56%	6 67%	7 78%
Inpatient critical care management	1 100%		1 100%		1 100%	4 44%	2 22%	6 67%	4 44%	6 67%
Intensive care unit	2		1		1	12	5	9	7	12
	100%	0	50%	0	50%	71%	29%	53%	41%	71%
Laboratory services secondary level	6 75%	2 25%	6 75%	3 38%	7 88%	59 36%	27 16%	102 62%	84 51%	71 43%
Laboratory services tertiary level	1 50%		1 50%	1 50%	1 50%	6 30%	7 35%	10 50%	8 40%	14 70%
	1		1	30 /6	1	13	8	13	23	14
Blood bank services	100%	4	100%		100%	39%	24%		70%	42%
Hemodialysis unit	1 50%	1 50%	1 50%	1 50%	1 50%	5 71%		4 57%	5 71%	6 86%
Basic X-ray service	7 88%	3	5 62%	3 38%	6 75%	112 74%	22 14%	29 19%	126 83%	48 32%
Radiology unit	2	0070	2	0070	2	7	7	7	12	9
Naulology utilit	100%		100%	2	100% 1	35% 4	35% 2	35% 5	60%	45%
Medical evacuation procedures	50%			100%		57%	29%	71%		57%
Procedures for mass casualty scenarios	2 100%			2 100%	1 50%	9 53%	6 35%	7 41%	6 35%	10 59%
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## PART II:

IN-DEPTH ANALYSIS BY HEALTH SERVICE





### How to read the charts and the maps

#### Service availability

#### Arc charts

Arc charts provide an overview of the overall availability of a health service. The total number of health facilities included in the analysis of a service is shown inside the arc chart. It should be noted that the analysis of individual services was limited to operational health facilities (see page 3 for details).

The availability of service is further broken down by governorate and health facility type.



#### Column charts

Column charts display the availability of a service by governorate. The number of health facilities in a governorate is shown below the governorate's name.



#### Donut charts

Each donut chart represents a type of health facility. The percentage of health facilities for which the service was available or partially available is shown inside the donut while the total number of health facilities included is shown at the bottom of the chart, below the health facility type name.



If a service was not available in any health facility, the number inside the chart displays the percentage of health facilities for which the service was partially or not available.

#### Maps



Maps display availability of health services at the governorate level. Each circle corresponds to the cumulative number of health facilities in a governorate and may be divided into multiple smaller circles with the colour representing the proportion of health facilities of a specific availability status. To highlight areas not reporting, respectively the impact of non-operational health facilities, maps depict all health facilities targeted with HeRAMS.

Map labels indicate the total number of health facilities expected to provide the service (i.e., excluding non-reporting, not operational, and health facilities where the service is not expected) as well as the percentage of health facilities where service is at least partially available. For ease of readability, labels for governorate where the service is not expected in any or at last partially available in all HSDUs have been omitted.



#### **Barriers**

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

#### Donut charts

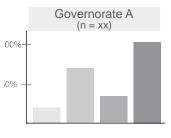


Each donut chart indicates the percentage of health facilities having reported a given reason. The total number of health facilities reporting at least one barrier

is shown below the chart header.

#### Bar charts

Bar charts depicting barriers follow the same logic as donut charts and exclude health facilities where the service was fully available. 10% The number of health facilities reporting at least one barrier is displayed below the governorates' name.



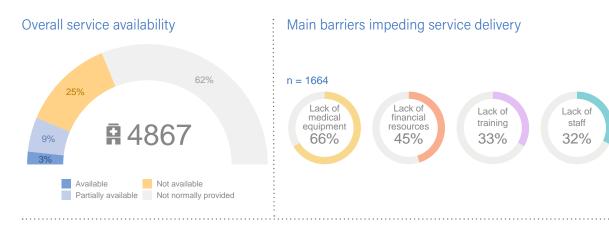
Important: The denominators of barrier charts exclude health facilities where the service was available up to standard. It should further be noted that health facilities could report up to three barriers for each service. Hence, the sum of all barriers may exceed 100%.

### REQUEST FOR AMBULANCE SERVICES BY THE PATIENT

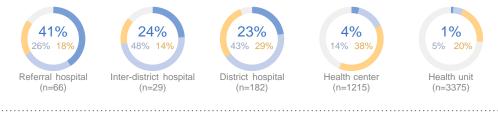
Lack of

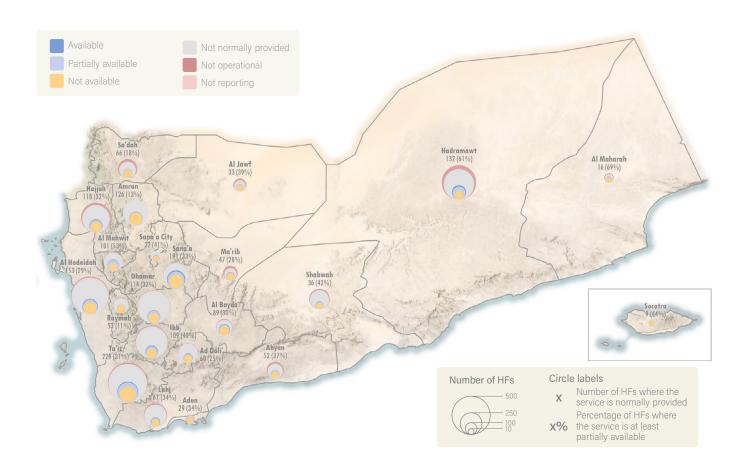
medical supplies

28%



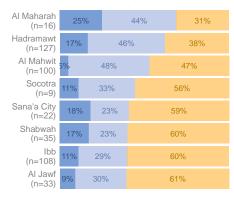
#### Service availability by type of HF

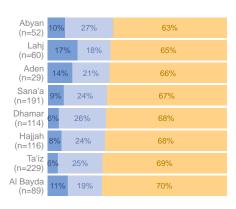


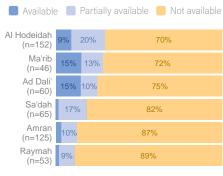




#### Service availability by governorate\*







#### Main barriers impeding service delivery by governorate

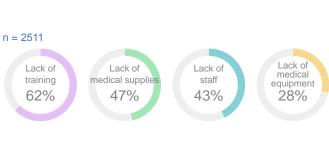


<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

### RECOGNITION OF DANGER SIGNS



#### Main barriers impeding service delivery



#### Service availability by type of HF



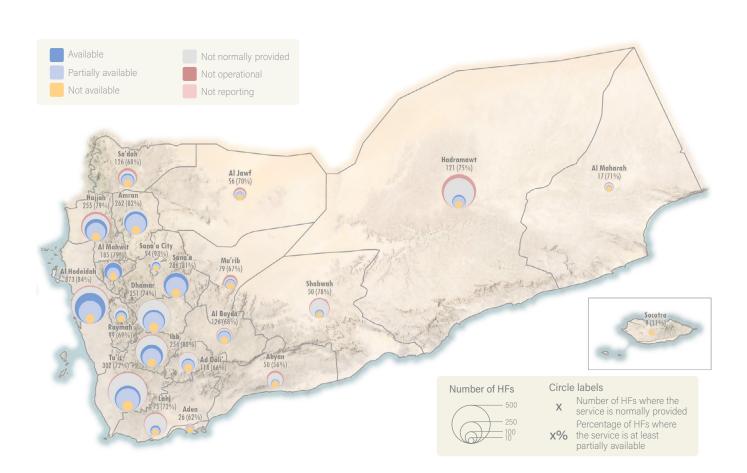






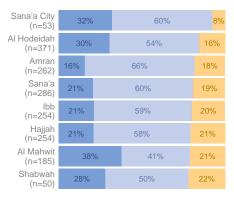


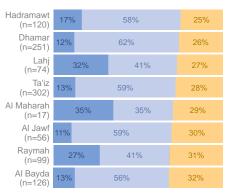
Lack of financial resources 25%





#### Service availability by governorate\*







#### Main barriers impeding service delivery by governorate

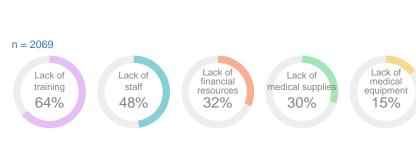


<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

### ACUITY-BASED FORMAL TRIAGE



#### Main barriers impeding service delivery



#### Service availability by type of HF

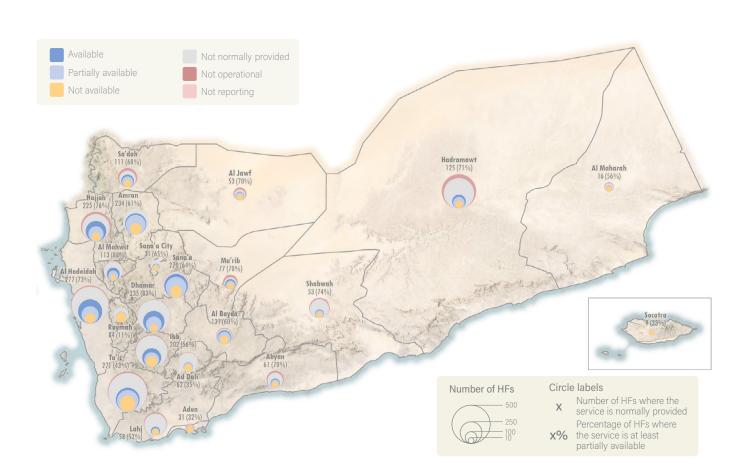






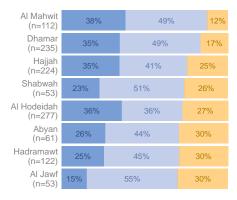


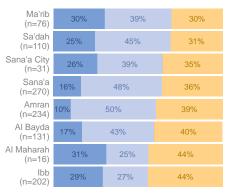


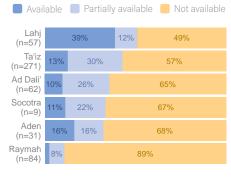




#### Service availability by governorate\*







#### Main barriers impeding service delivery by governorate



<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

## WHO BASIC EMERGENCY CARE BY PREHOSPITAL PROVIDER







#### Service availability by type of HF





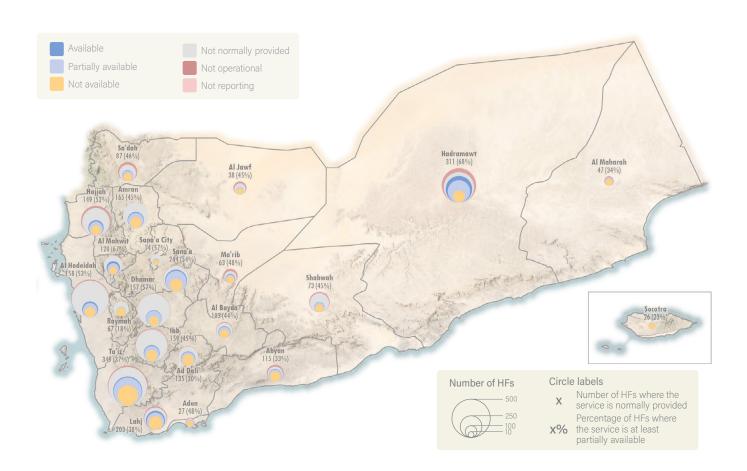






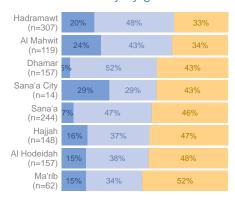
Lack of medical equipment

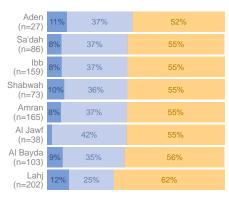
36%

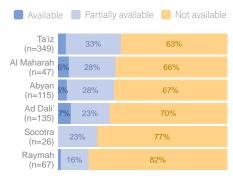




#### Service availability by governorate\*







#### Main barriers impeding service delivery by governorate

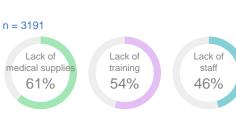


<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

### WHO BASIC EMERGENCY CARE



#### Main barriers impeding service delivery







#### Service availability by type of HF

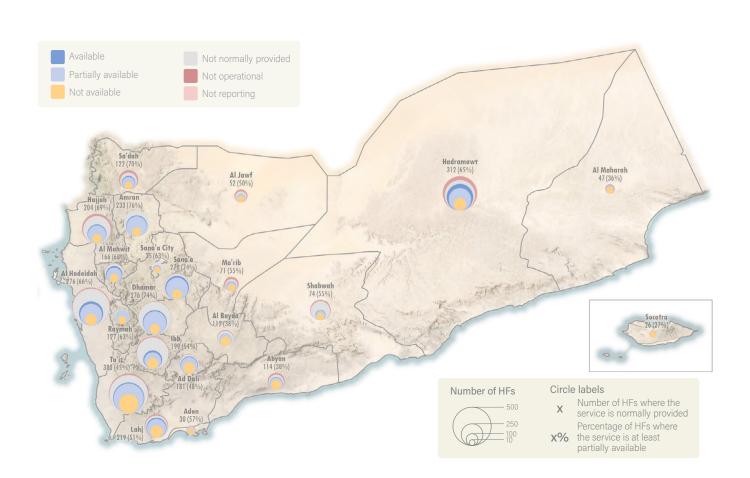






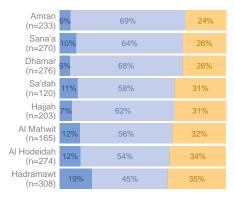


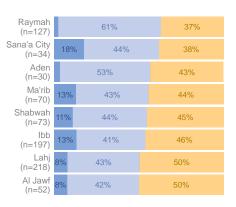


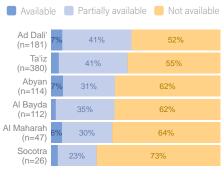




#### Service availability by governorate\*







#### Main barriers impeding service delivery by governorate



<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

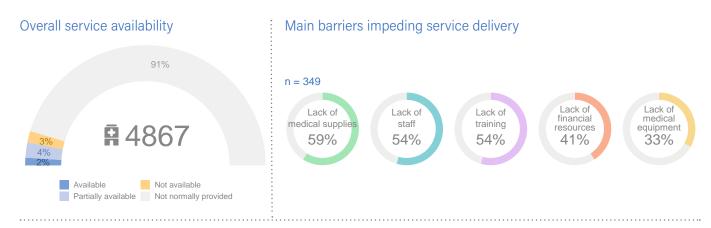
### ADVANCED SYNDROME-BASED MANAGEMENT

23%

District hospital

(n=182)

51% 239



1%

5% 6%

Health center

(n=1215)

<1% 99%

Health unit

(n=3375)

#### Service availability by type of HF

44%

Referral hospital

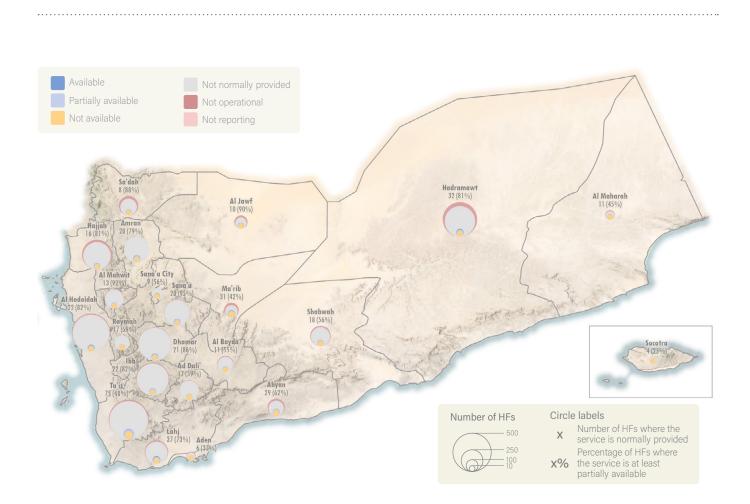
(n=66)

48%

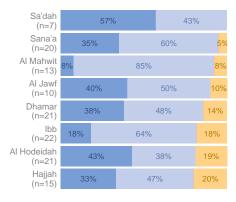
34% **10**9

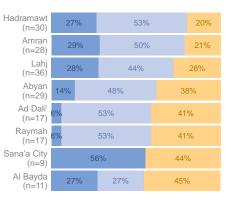
Inter-district hospital

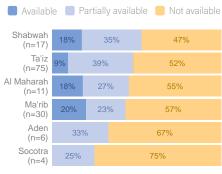
(n=29)











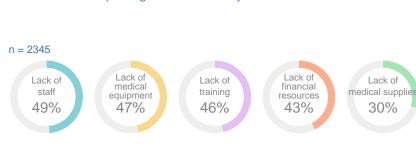


<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# Monitored referral



#### Main barriers impeding service delivery



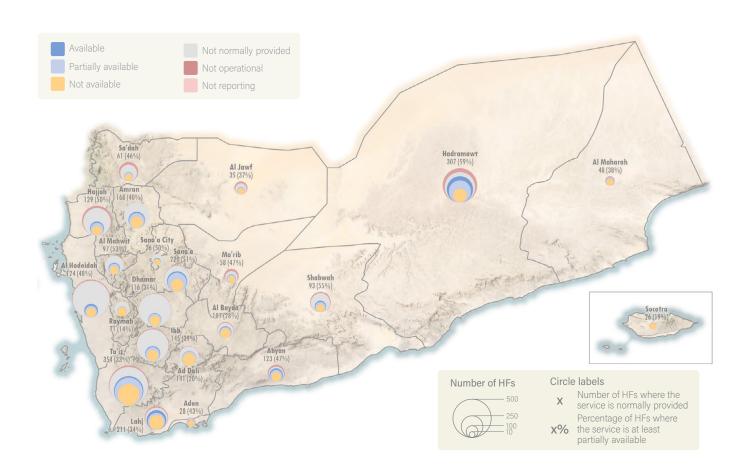




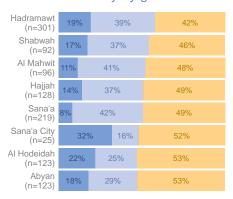


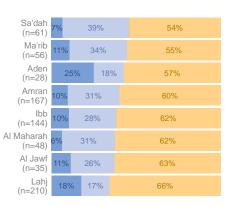


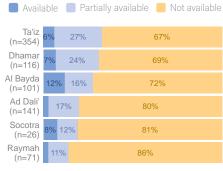












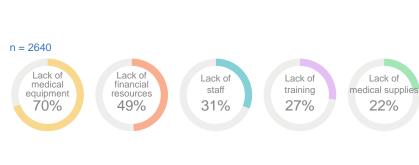


<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# REFERRAL CAPACITY



#### Main barriers impeding service delivery



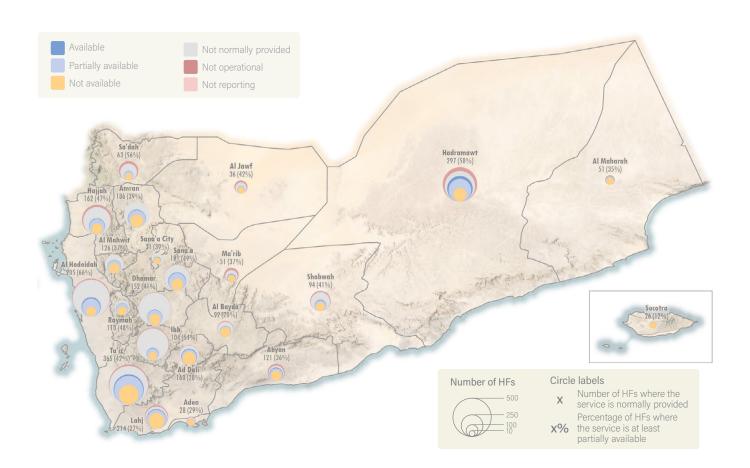




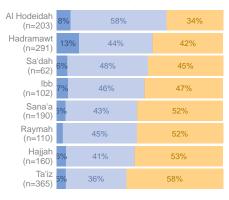


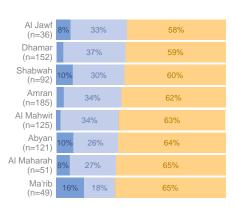


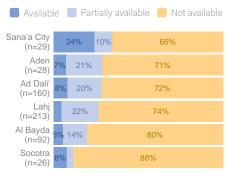












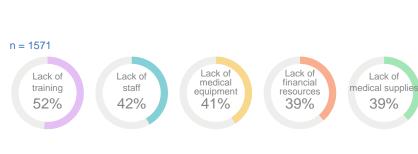


<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# ACCEPTANCE OF REFERRALS



#### Main barriers impeding service delivery



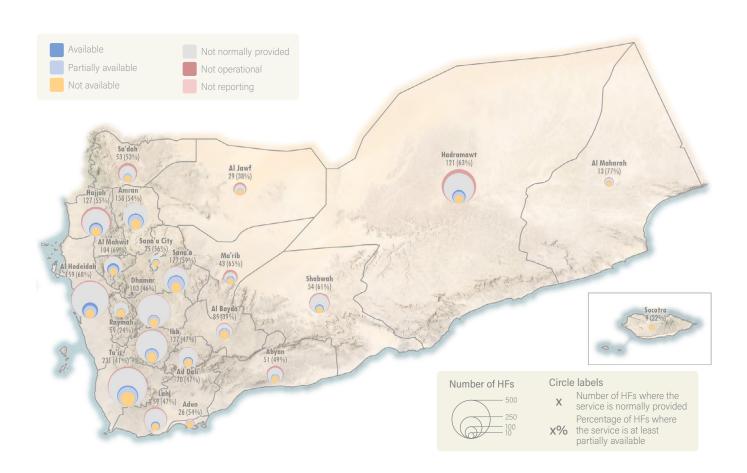




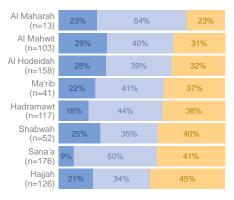


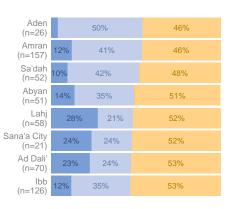


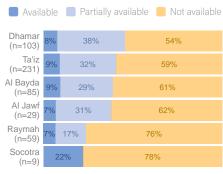








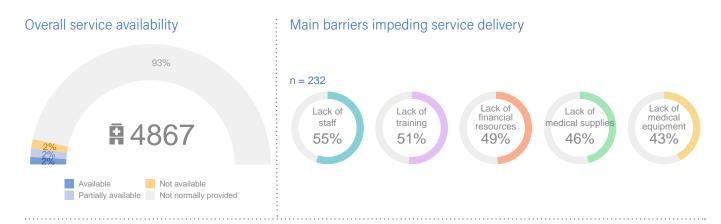


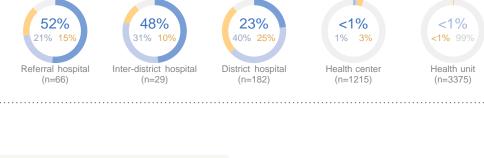


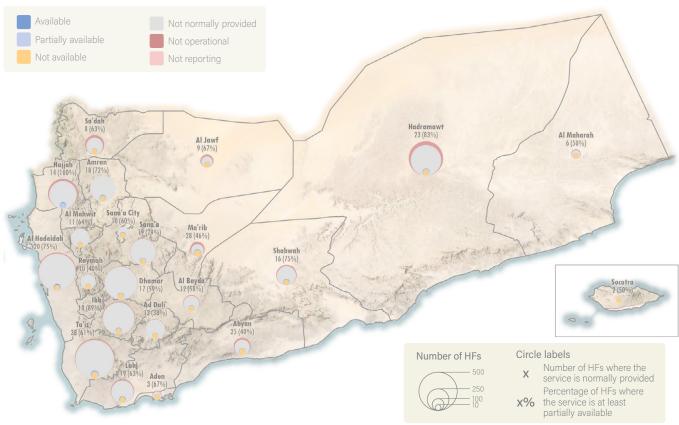


<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

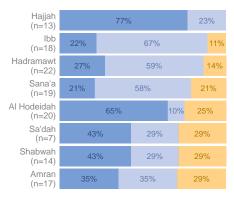
# ACCEPTANCE OF COMPLEX REFERRALS

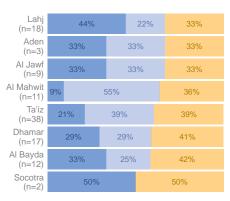


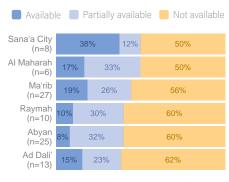








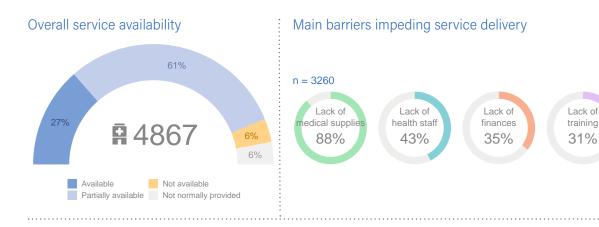






<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# OUTPATIENT SERVICES FOR PRIMARY CARE



60%

District hospital

(n=182)

40% <1

41%

Health center

(n=1215)

19%

66% 8%

Health unit

(n=3375)

Lack of medical equipment

16%

#### Service availability by type of HF

53%

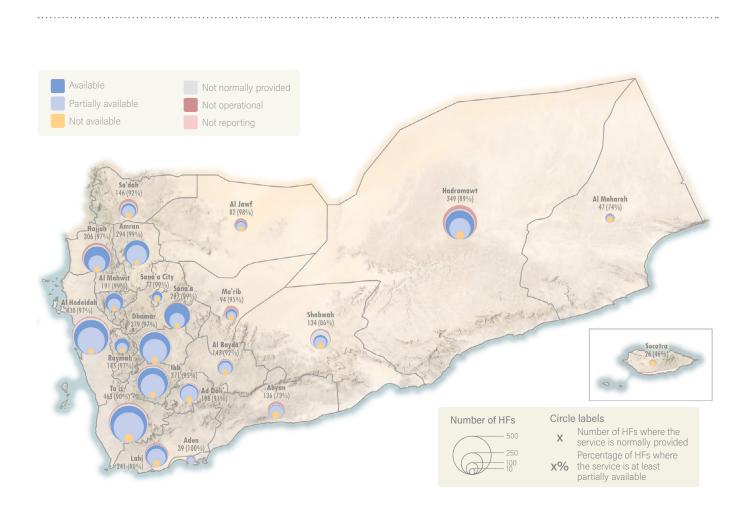
Referral hospital

(n=66)

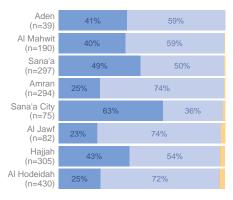
59%

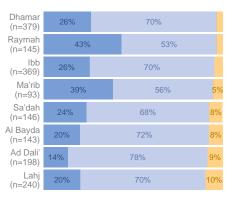
Inter-district hospital

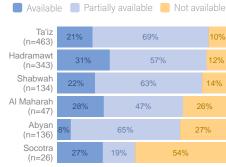
(n=29)













<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

## OUTPATIENT DEPARTMENT FOR SECONDARY CARE

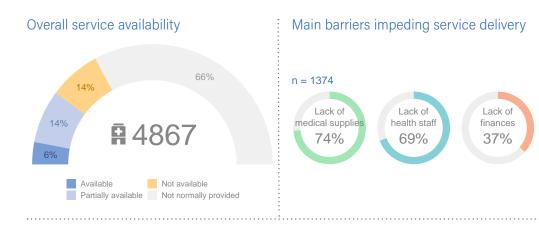
Lack of medical equipment

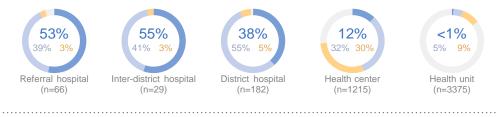
19%

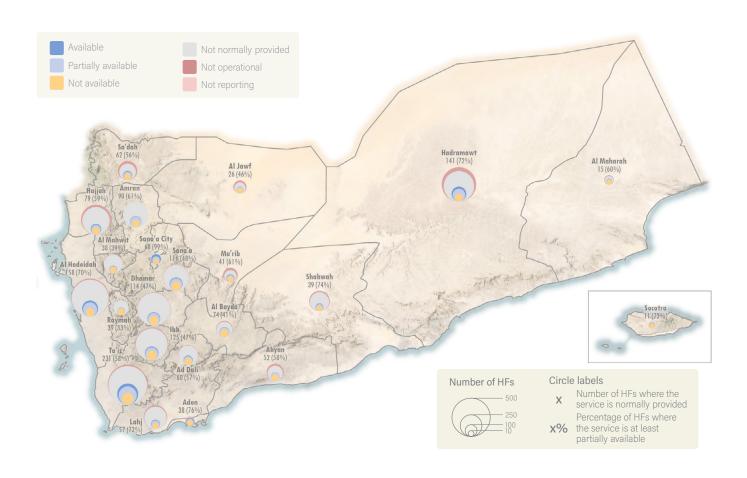
Lack of

training

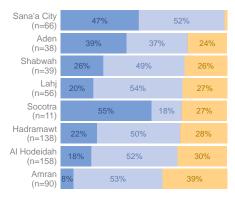
24%

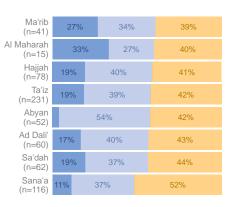


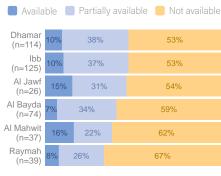












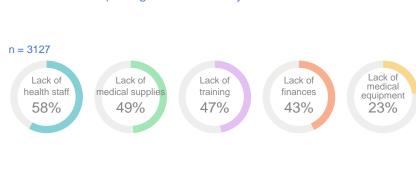


<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

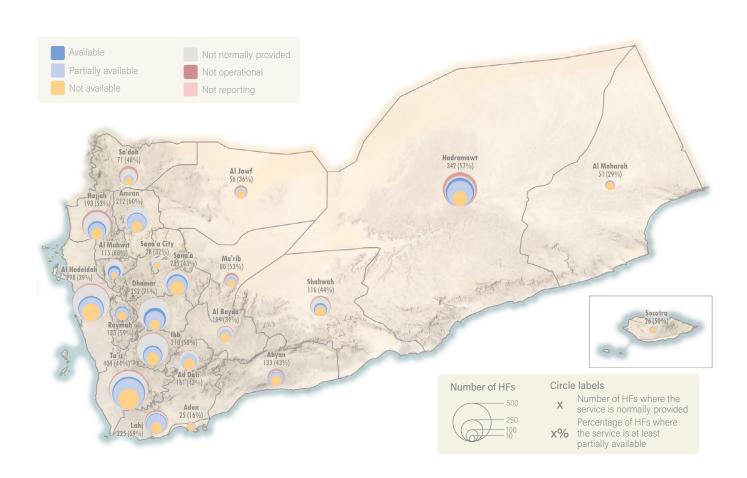
# Home visits



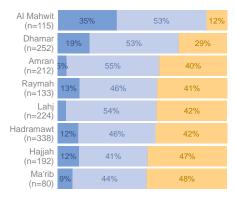
#### Main barriers impeding service delivery

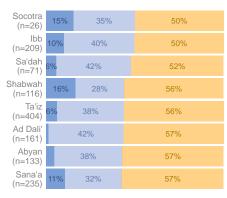


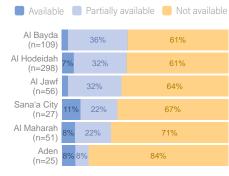














<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# MINOR TRAUMA DEFINITIVE MANAGEMENT



#### Main barriers impeding service delivery



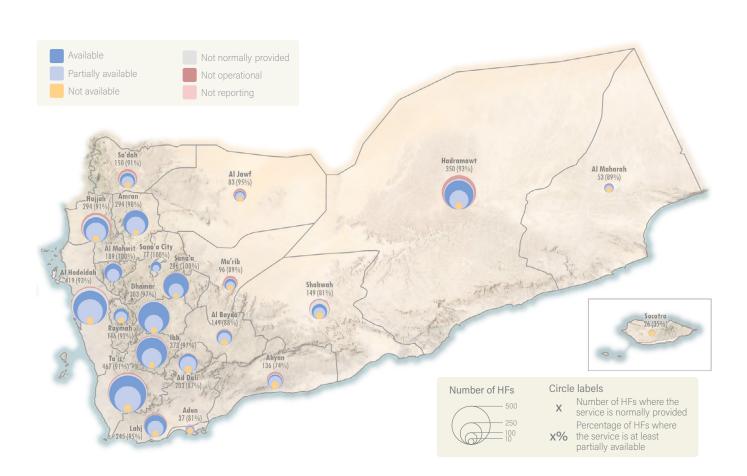




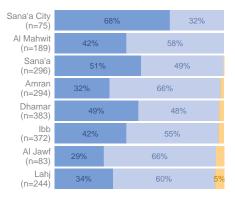


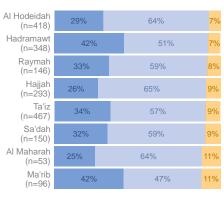


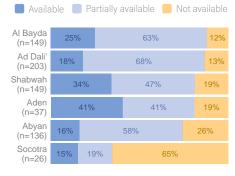








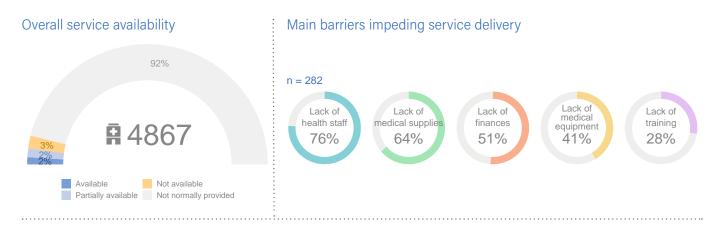






<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# EMERGENCY AND ELECTIVE SURGERY



<1%

<1% 4%

Health center

(n=1215)

<1% 1%

Health unit

(n=3375)

15%

41% 40%

District hospital

(n=182)

55%
31% 109

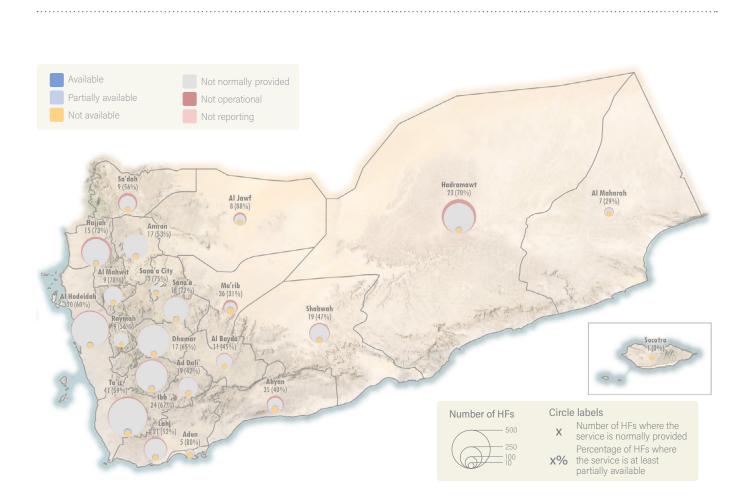
Inter-district hospital

(n=29)

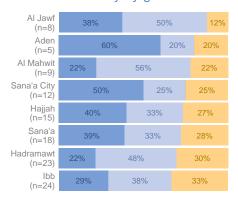
#### Service availability by type of HF

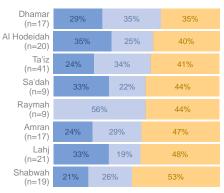
Referral hospital

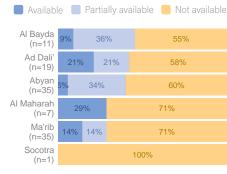
(n=66)







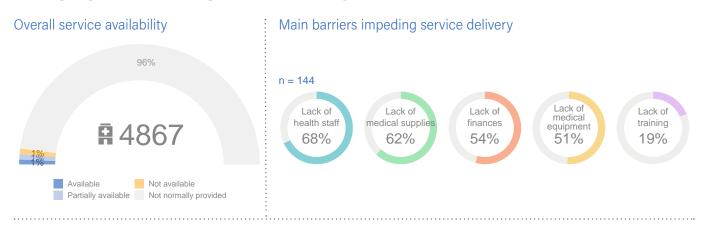


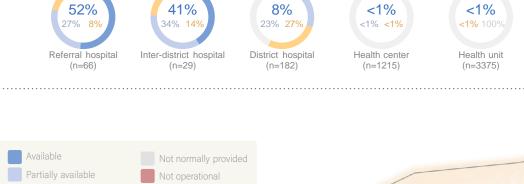


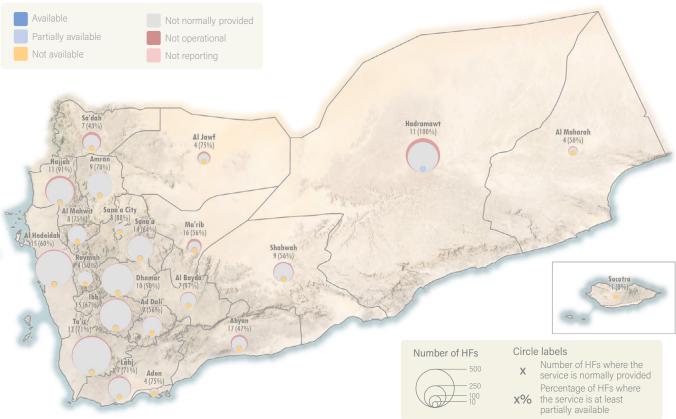


<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

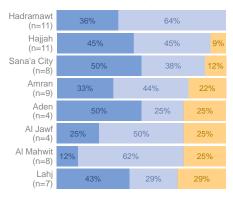
# EMERGENCY AND ELECTIVE SURGERY WITH AT LEAST TWO OPERATING THEATRES

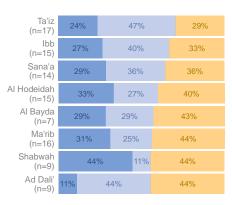


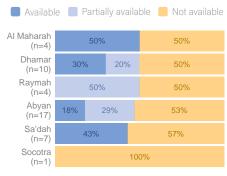








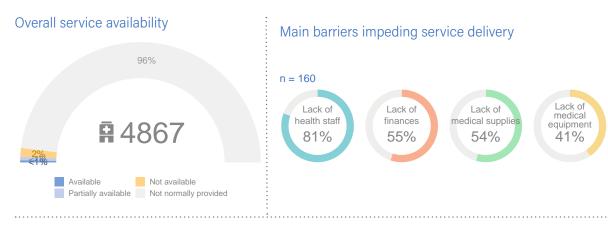






<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# ORTHOPEDIC/TRAUMA WARD

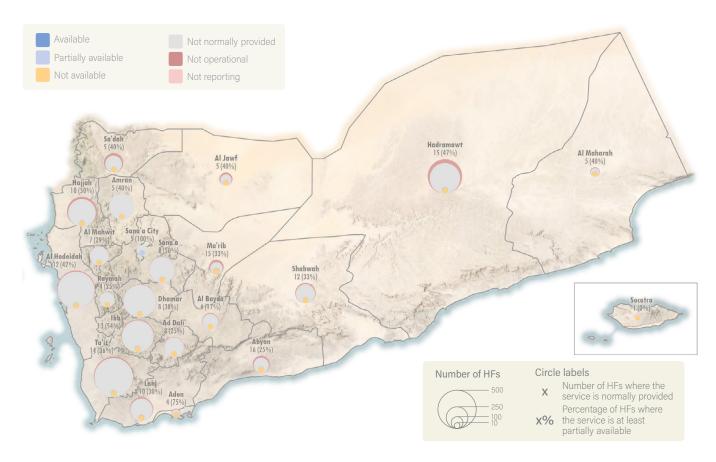


Lack of

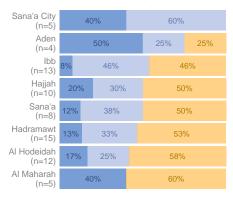
training

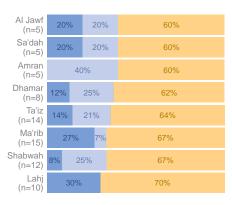
21%

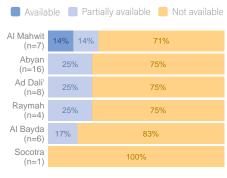














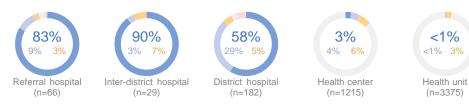
<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

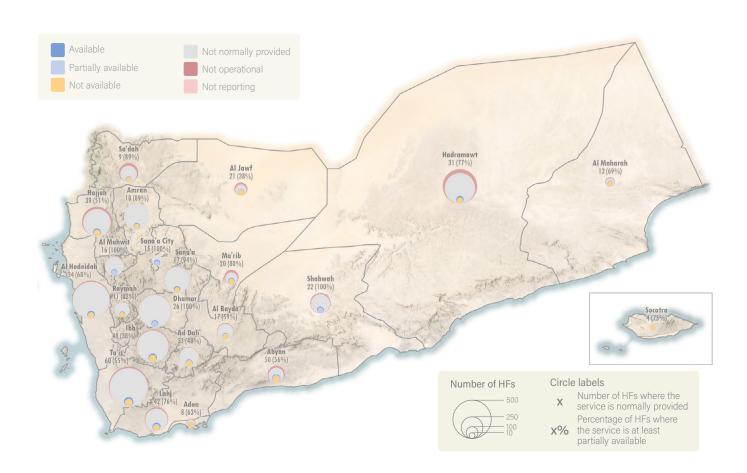
# SHORT HOSPITALIZATION CAPACITY



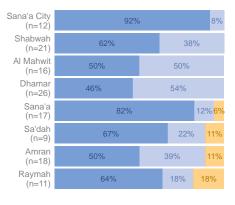
#### Main barriers impeding service delivery

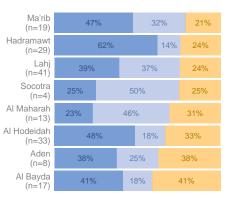
















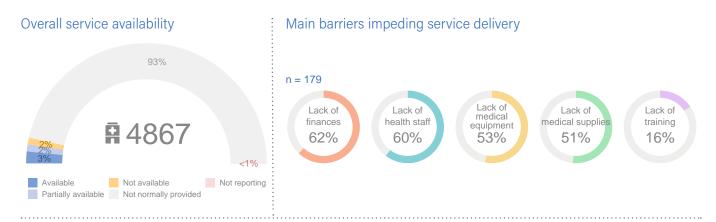
<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# 20 INPATIENT BED CAPACITY

83%

Inter-district hospital

(n=29)



<1%

Health center

(n=1215)

<**1%** 100%

Health unit

(n=3375)

partially available

1% 3%

39%

District hospital

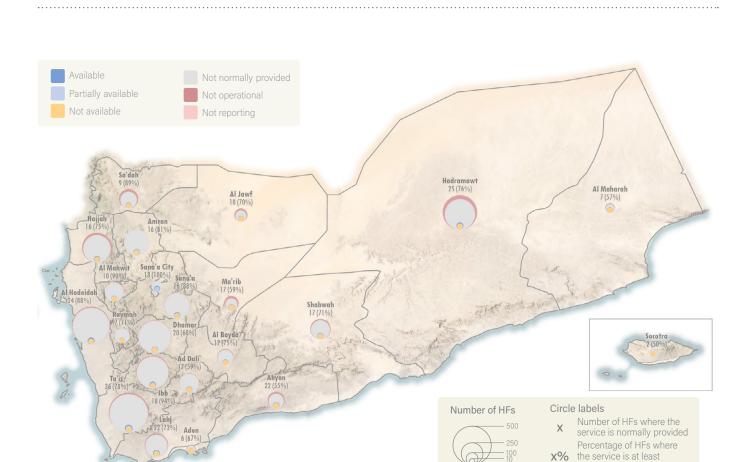
(n=182)

36% 17

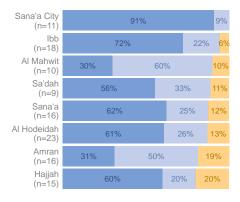
#### Service availability by type of HF

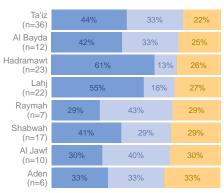
Referral hospital

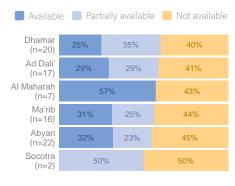
(n=66)













<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# 50 INPATIENT BED CAPACITY



#### Service availability by type of HF



Lack of

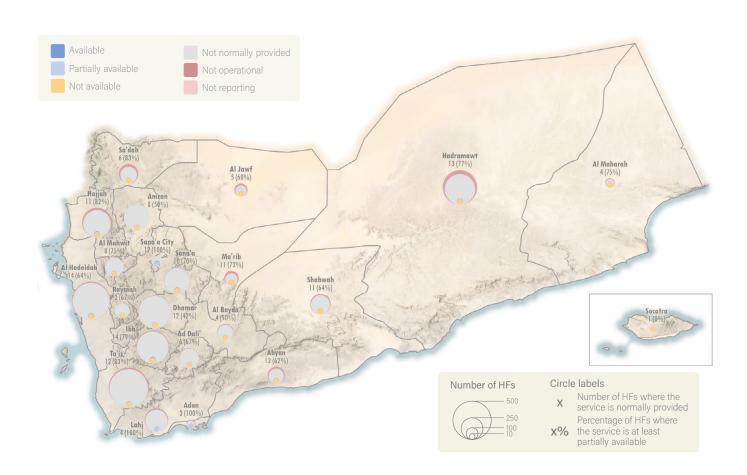
medical supplies

45%

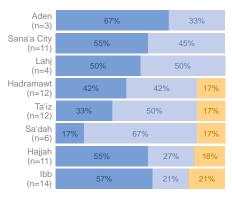
Lack of

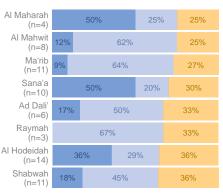
training

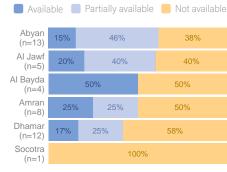
13%







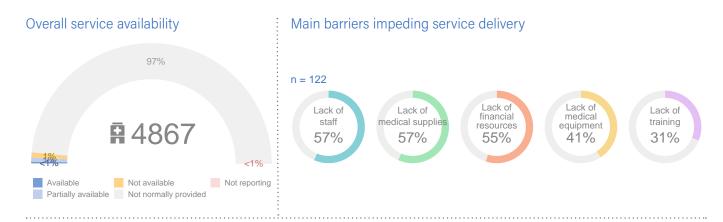


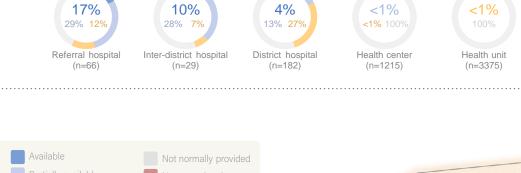


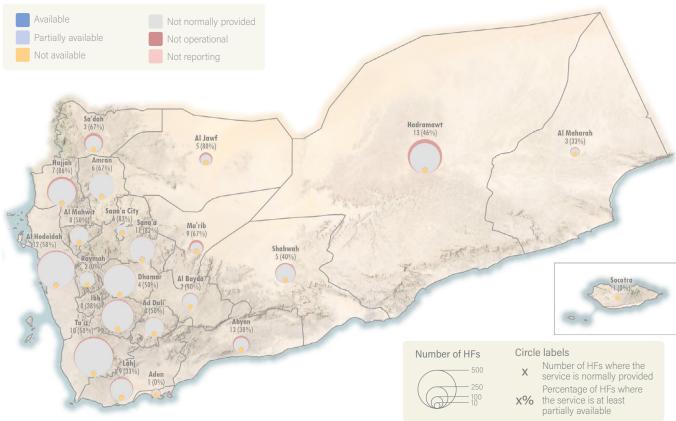


<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

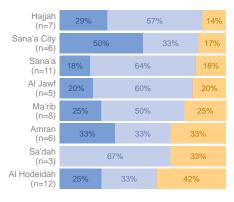
### NPATIENT CRITICAL CARE MANAGEMENT

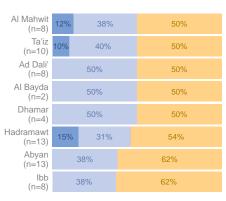


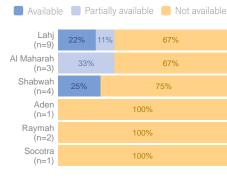


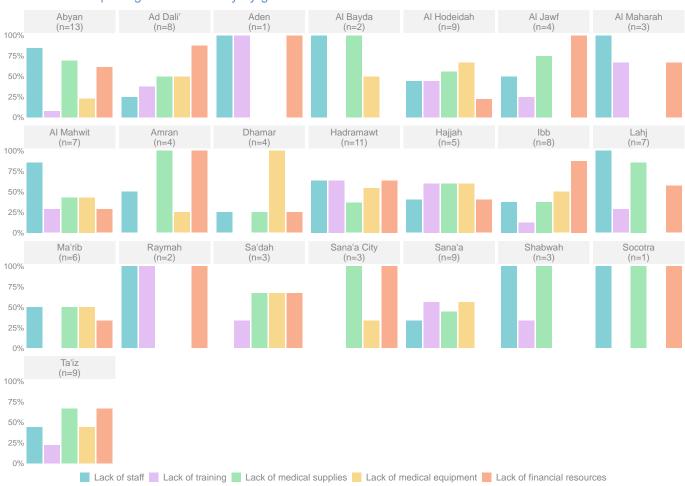












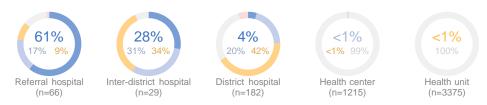
<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

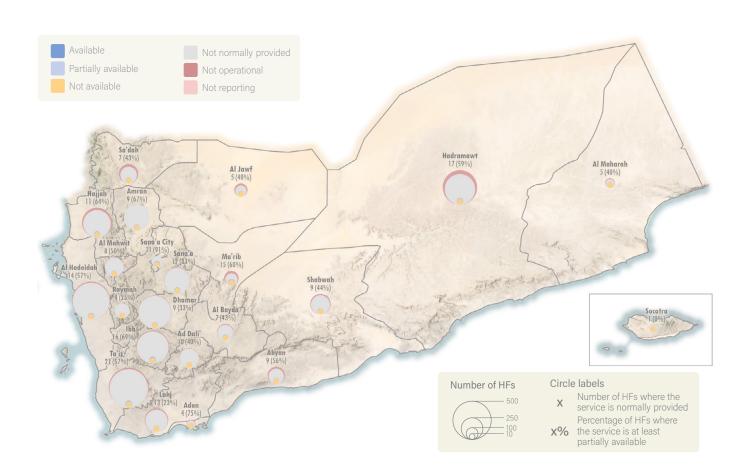
# **INTENSIVE CARE UNIT**



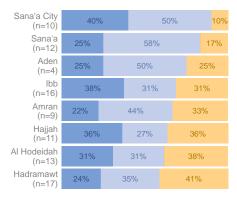
#### Main barriers impeding service delivery

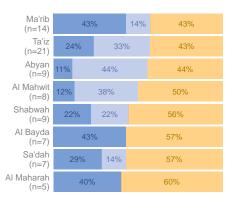


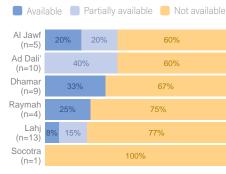














<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# BASIC LABORATORY



#### Main barriers impeding service delivery



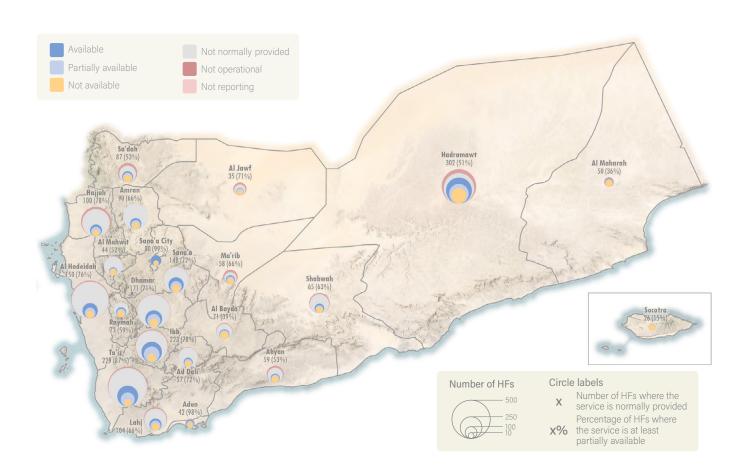




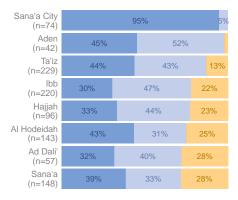


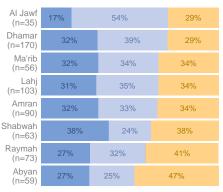


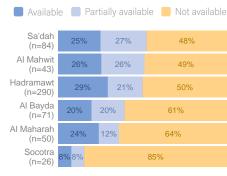












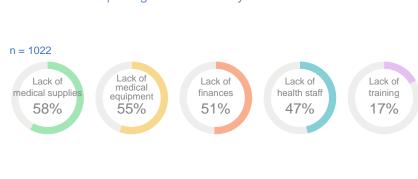


<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

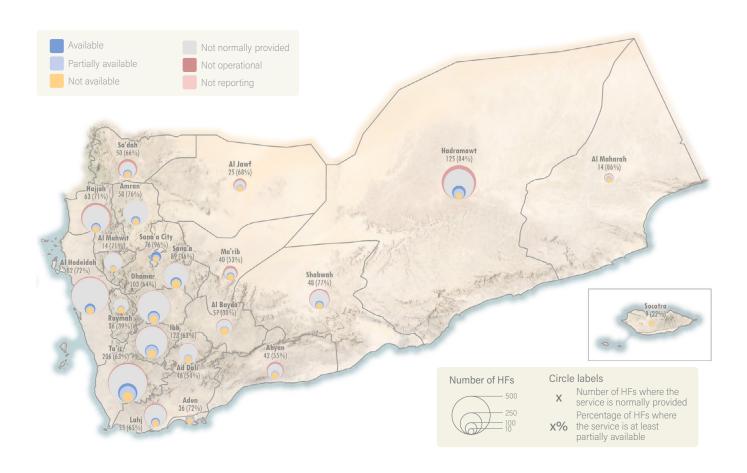
# LABORATORY SERVICES SECONDARY LEVEL

# Overall service availability 72% 10% 11% Available Not available Not normally provided

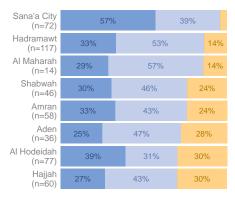
#### Main barriers impeding service delivery

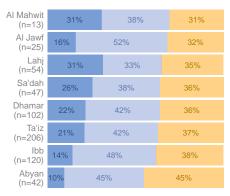


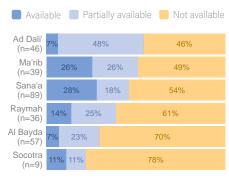








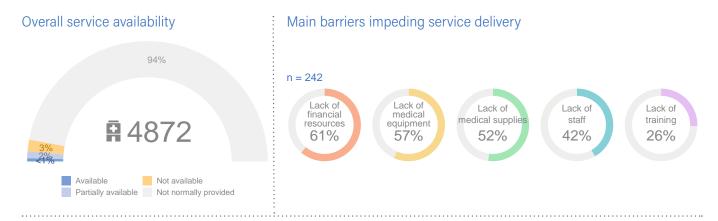




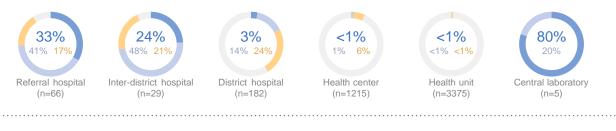


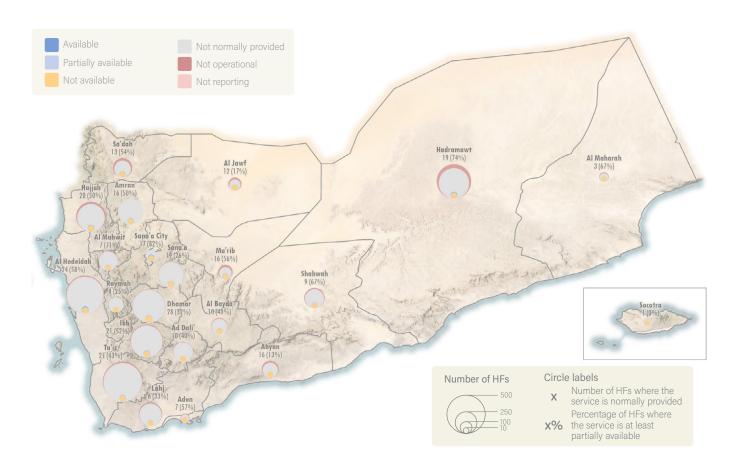
<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

### LABORATORY SERVICES TERTIARY LEVEL

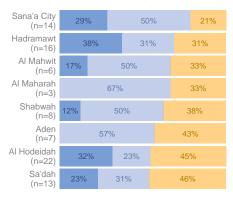


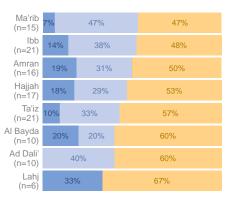
#### Service availability by type of HF

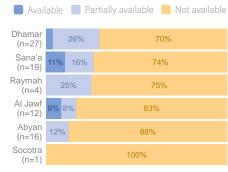








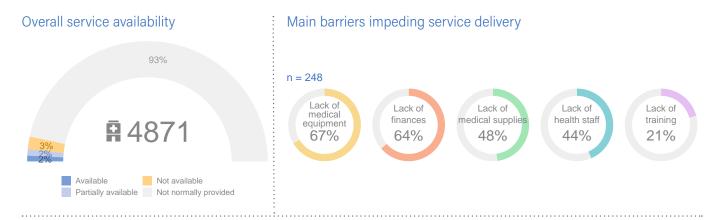






<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# **BLOOD BANK SERVICES**



<1%

<1% 5%

Health center

(n=1215)

<1%

<1% <1%

Health unit

(n=3375)

100%

Blood bank

(n=4)

9%

25% 48%

District hospital

(n=182)

#### Service availability by type of HF

47

Referral hospital

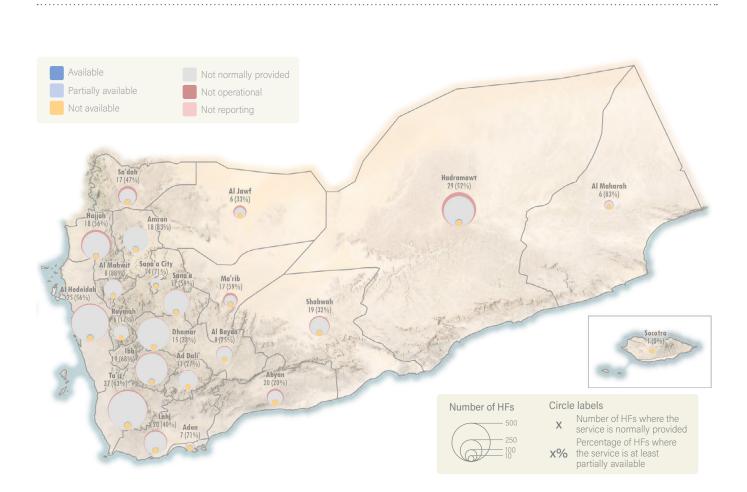
(n=66)

59%

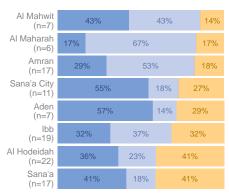
Inter-district hospital

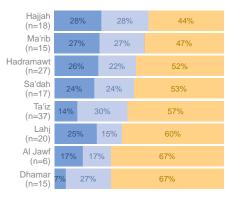
(n=29)

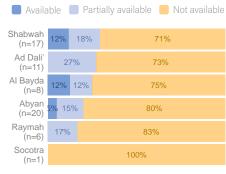
28% 10







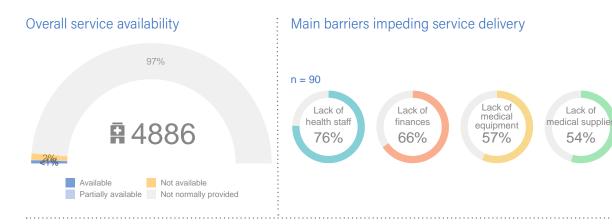




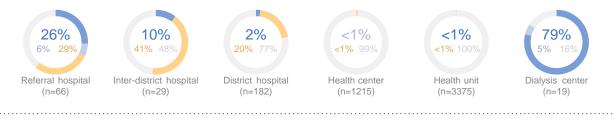


<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# HEMODIALYSIS UNIT



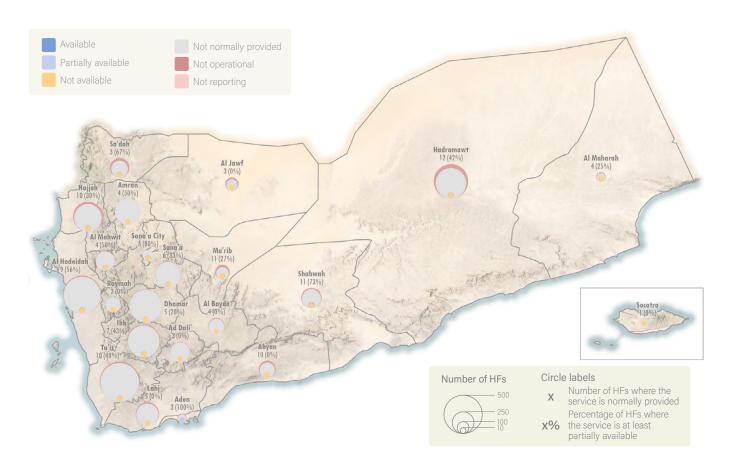
#### Service availability by type of HF



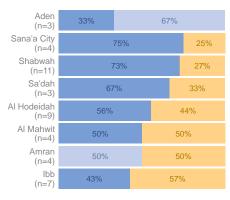
Lack of

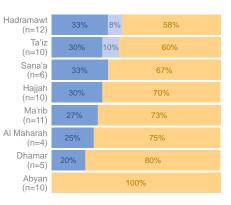
training

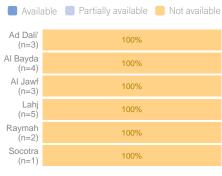
20%













<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# Basic X-ray service

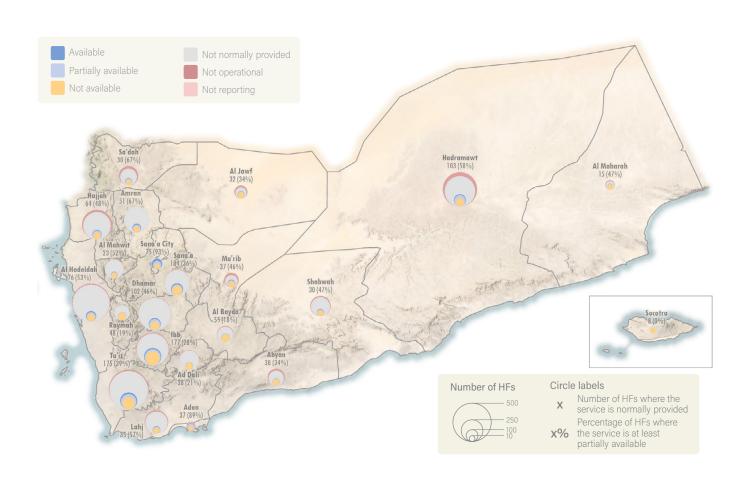
# Overall service availability 72% 8% 4867 Available Not available Not normally provided

#### Main barriers impeding service delivery

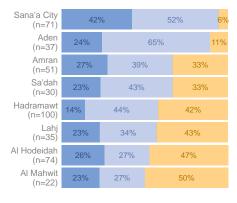


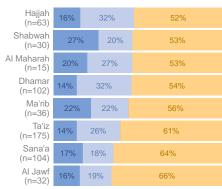
#### Service availability by type of HF

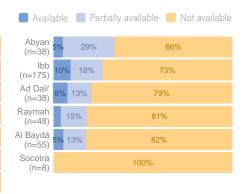








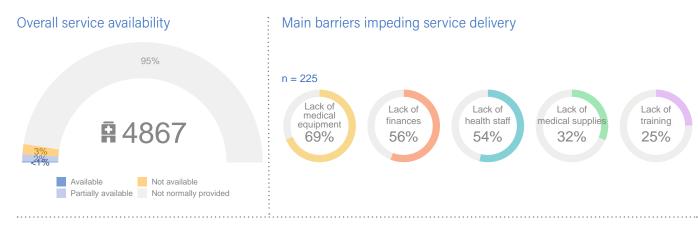






<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# RADIOLOGY UNIT



1%

10% 26%

District hospital

(n=182)

<1%

2% 4%

Health center

(n=1215)

Health unit

(n=3375)

#### Service availability by type of HF

14%

52% 18%

Referral hospital

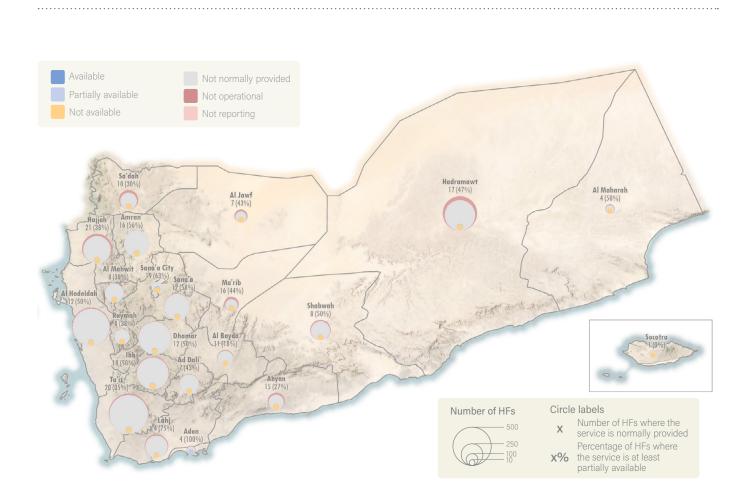
(n=66)

7%

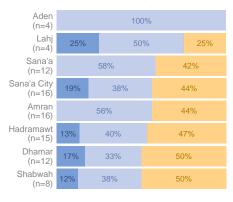
62% 17%

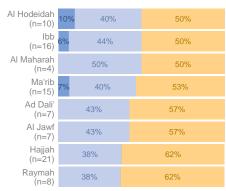
Inter-district hospital

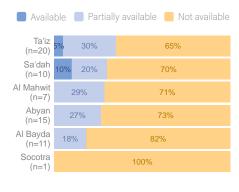
(n=29)







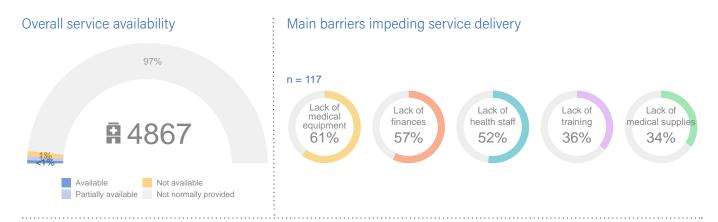




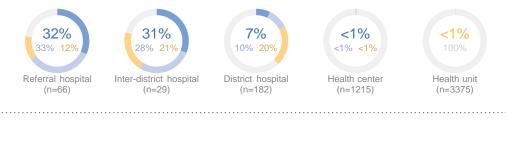


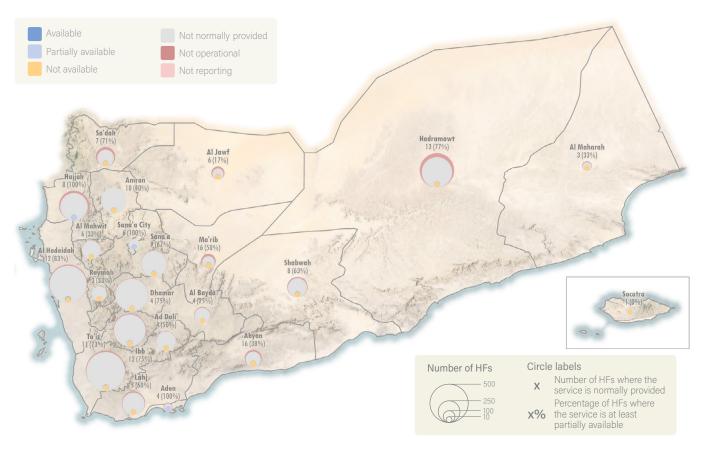
<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

# MEDICAL EVACUATION PROCEDURES

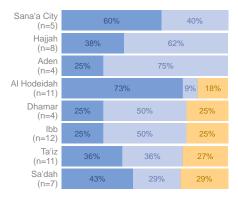


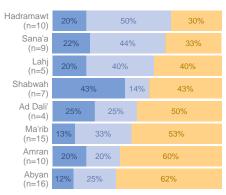
#### Service availability by type of HF

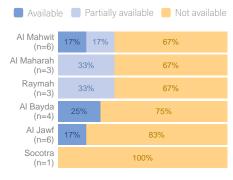














<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

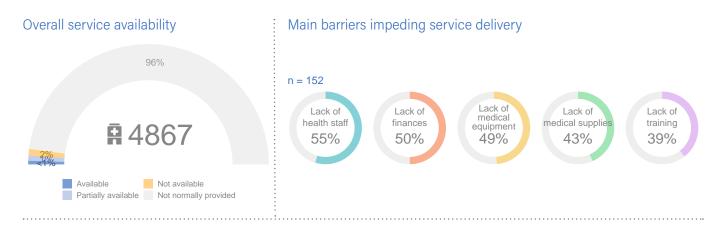
# Procedures for mass casualty scenarios

7%

19% 31%

District hospital

(n=182)



<1%

<1% <1%

Health center

(n=1215)

Health unit

(n=3375)

#### Service availability by type of HF

33%

Referral hospital

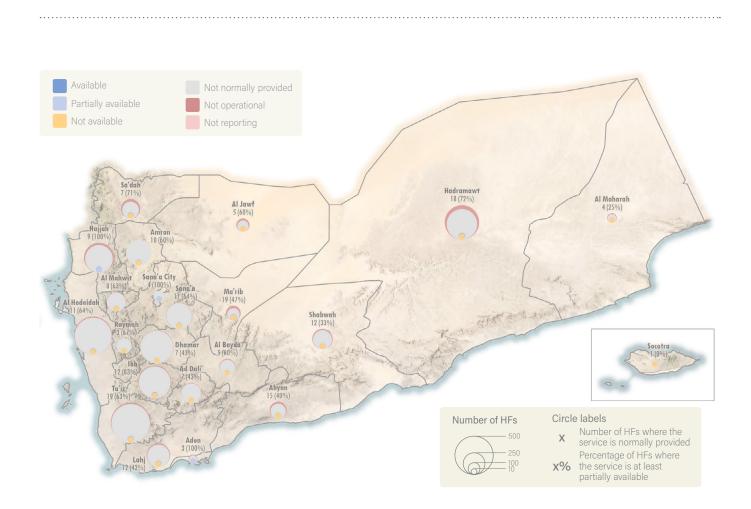
(n=66)

41%

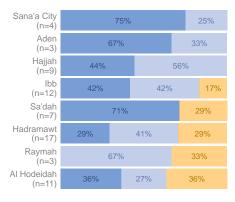
38% 17

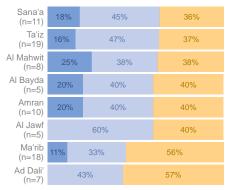
Inter-district hospital

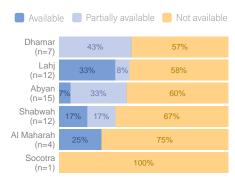
(n=29)













<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.



# ANNEXES



# Annex I: Definitions of essential services

Service	Definition	EXPECTED SERVICE					
	DEFINITION	RH	IDH	DH	НС	HU	
REQUEST FOR AMBULANCE SERVICES BY THE PATIENT	User-request dispatch of basic ambulance services from district-level staging center (e.g., ambulance pool)	X	Χ	Χ			
RECOGNITION OF DANGER SIGNS	Recognition of danger signs in neonates, children and adults, including early recognition of signs of serious infection, with timely referral to higher-level care.	X	Х	Χ	Χ	Χ	
ACUITY-BASED FORMAL TRIAGE	Acuity-based formal triage of children and adults at first entry to the facility (with a validated instrument such WHO/ICRC Interagency Triage Tool)	X	Χ	Χ	Χ		
WHO BASIC EMERGENCY CARE BY PREHOSPITAL PROVIDER	Initial syndrome-based management at scene by prehospital providers for difficulty breathing, shock, altered mental status, and polytrauma.	Χ	Χ	Χ			
WHO BASIC EMERGENCY CARE	Basic syndrome-based management of difficulty breathing, shock, altered mental status, and polytrauma for neonates, children and adults	X	Χ	Χ	X	Χ	
Advanced syndrome-based management	Advanced syndrome-based management of difficulty breathing, shock, altered mental status, and polytrauma in dedicated emergency unit, including for neonates, children and adults (Interventions include intubation, mechanical ventilation, surgical airway, and placement of chest drain, hemorrhage control, defibrillation, administration of IV fluids via peripheral and central venous line with adjustment for age and condition, including malnutrition; administration of essential emergency medications)	X	X	X			
Monitored referral	Direct provider monitoring during transport to appropriate healthcare facility and structured handover to facility personnel.	Χ	Χ	Χ			
REFERRAL CAPACITY	Referral procedures, means of communication, access to transportation	Χ	Χ	Χ	Χ	Χ	
Acceptance of referrals	Acceptance of referral with remote decision support for prehospital providers and primary-level facilities, and condition-specific protocol-based referral to higher levels	Х	Х	X			
ACCEPTANCE OF COMPLEX REFERRALS	Acceptance of complex referrals with remote decision support for pre- hospital providers and lower-level facilities	X	Χ				
OUTPATIENT SERVICES FOR PRIMARY CARE	Outpatient services for primary care with the availability of all essential drugs for primary care as per national guidelines.	Χ	Χ	Χ	X	Χ	
OUTPATIENT DEPARTMENT FOR SECONDARY CARE	Outpatient department with the availability of all essential drugs for secondary care as per national guidelines (including NCD and pain management), and at least one general practitioner.	Χ	Χ	Χ	Χ		
HOME VISITS	Include promoting self-care practices, monitoring non-communicable diseases (NCD) medication compliance, and palliative care.	Χ	Χ	Χ	Χ	Χ	
MINOR TRAUMA DEFINITIVE MANAGEMENT	Pain management, tetanus toxoid, and human antitoxin, minor surgery kits, suture absorbable/silk with needles, disinfectant solutions, bandages, gauzes, cotton wool.	Χ	Χ	Χ	Χ	Χ	
EMERGENCY AND ELECTIVE SURGERY	Full surgical wound care, advanced fracture management through at least one operating theatre with basic general anesthesia (with or without gas)	X	X	Χ			
EMERGENCY AND ELECTIVE SURGERY WITH AT LEAST TWO OPERATING THEATRES	Emergency and elective surgery with at least two operating theatres with pediatric and adult gaseous anesthetic	Χ	X				
ORTHOPEDIC/TRAUMA WARD	Advanced orthopedic and surgical care, including burn patient management	X	X				
SHORT HOSPITALIZATION CAPACITY	Short hospitalization capacity (maximum 48 hours)	X	Х	X	Χ		
20 Inpatient bed capacity	At least 20 inpatient bed capacity with 24/7 availability of medical doctors (MD), nurses and midwives, and 4-5 beds for short observation before admission, or 24/48-hour hospitalization	Χ	Χ	X	X		

6		
4	W	

Service	D	EXPECTED SERVICE					
	Definition		IDH	DH	НС	HU	
50 INPATIENT BED CAPACITY	Includes pediatric and ob-gyn wards with 24/7 availability of doctors and/or specialists (general surgeon, ob-gyn, pediatrician, others)	X	Χ	Χ			
INPATIENT CRITICAL CARE MANAGEMENT	Includes availability of mechanical ventilation, infusion pumps, and third- line emergency drugs	X	X				
INTENSIVE CARE UNIT	Includes at least 4 ICU beds	Χ	Χ	Χ			
BASIC LABORATORY	Basic hematology, bacteriology, and clinical pathology services	Χ	Χ	Χ	Χ		
LABORATORY SERVICES SECONDARY LEVEL		X	X	X			
LABORATORY SERVICES TERTIARY LEVEL	Includes electrolyte and blood gas concentrations, public health laboratory capacities	X	X	X			
BLOOD BANK SERVICES		Χ					
HEMODIALYSIS UNIT		Χ					
BASIC X-RAY SERVICE	X-ray service (basic radiological unit) and ultrasound	Χ	Χ	Χ	Χ		
RADIOLOGY UNIT	X-ray with stratigraphy, interoperation X-ray intensifier, ultrasound, MRI, and/or CT scan	X	X	X			
MEDICAL EVACUATION PROCEDURES	Medical evacuation procedures (medevac): means of transport and referral network for patients requiring highly specialized care	X	X				
PROCEDURES FOR MASS CASUALTY SCENARIOS	Procedures in place for early discharge of post-surgery patients through referral to secondary hospitals, in mass casualty scenario	Х	X				

RH = referral hospital, IDH = inter-district hospital, DH = district hospital, HC = health center, HU = health unit.

# Annex II: Population estimations

GOVERNORATE	Population estimations
Abyan	652,038
Ad Dali'	869,050
Aden	1,118,611
AL BAYDA	813,748
Al Hodeidah	3,158,169
AL JAWF	621,589
Al Maharah	193,822
Al Mahwit	804,472
Amran	1,253,006
Dhamar	2,299,288
Hadramawt	1,643,041
Најјан	2,428,326
IBB	3,244,039
Lahj	1,129,754
Ma <sup>'</sup> rib	1,072,048
Rауман	592,069
Sa <sup>'</sup> DAH	1,004,814
Sana'a	1,138,450
Sana'a City	3,869,414
Shabwah	707,407
Socotra	72,422
Ta'ız	3,203,121
Total	31,888,698

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