

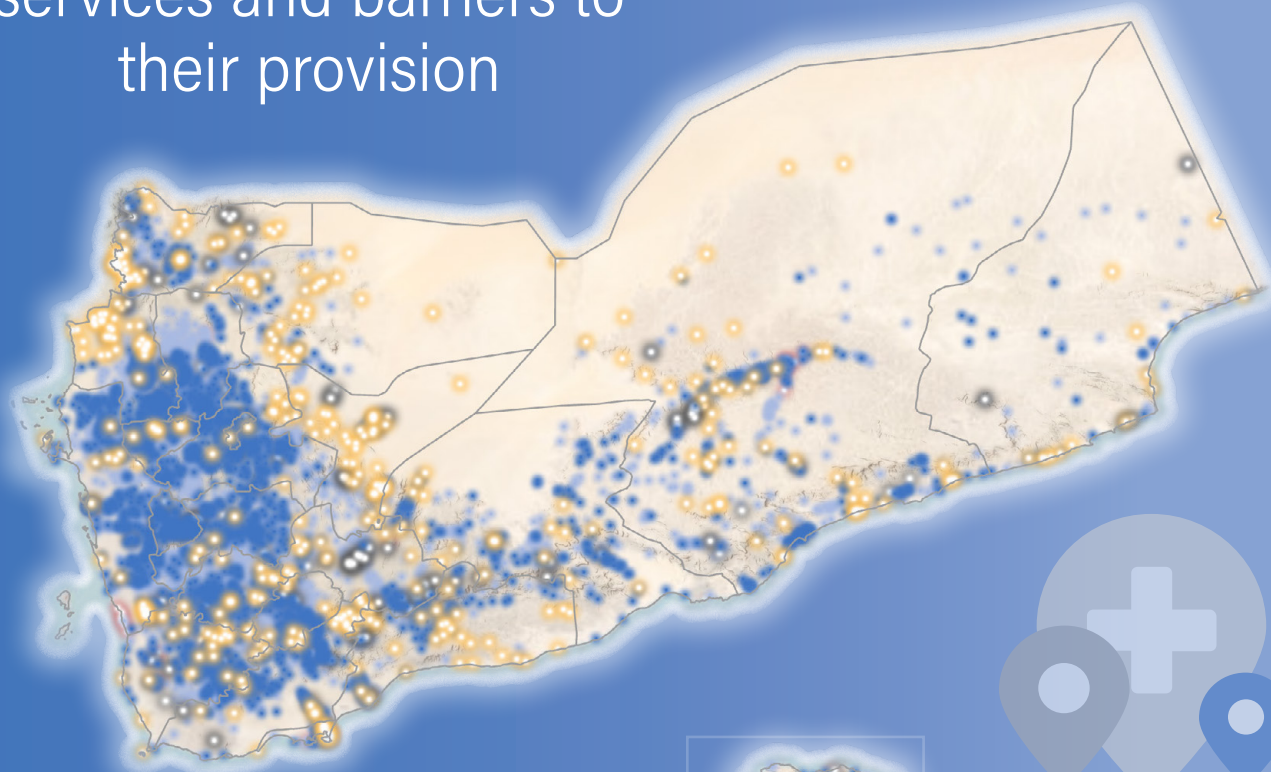
HeRAMS Yemen

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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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



Ministry of Public Health & Population

وزارة الصحة العامة والسكان



World Health
Organization



HeRAMS
Health Resources and Services
Availability Monitoring System



WORLD BANK GROUP

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ACRONYMS

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 <https://www.who.int/initiatives/herams> or contact herams@who.int.

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

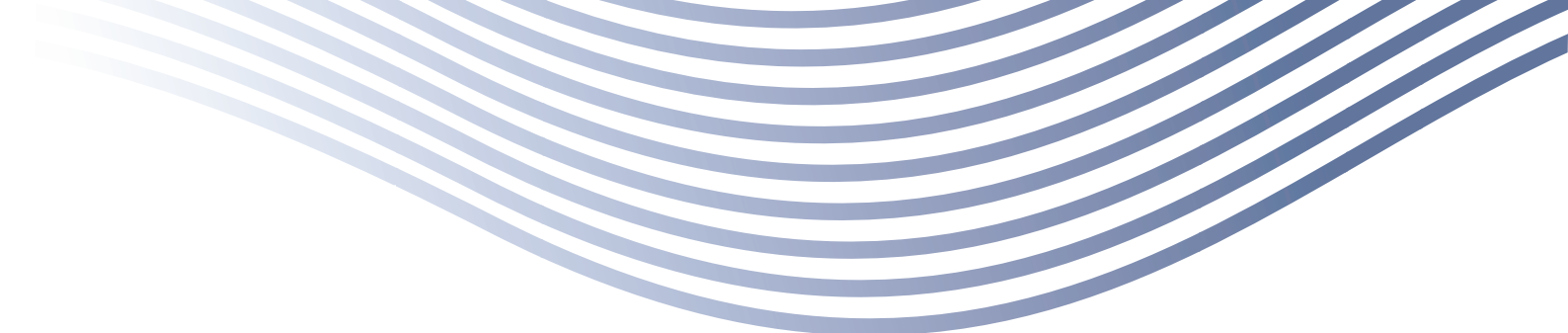
² HeRAMS Yemen baseline report 2023 - Child health and nutrition services: A comprehensive mapping of availability of essential services and barriers to their provision, <https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-child-health-and-nutrition-services>.

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

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

⁵ 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, <https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-ncd-and-mental-health-services>.

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PART I:

OVERVIEW OF THE AVAILABILITY OF GENERAL CLINICAL AND TRAUMA CARE SERVICES



HOW TO READ THE CHARTS

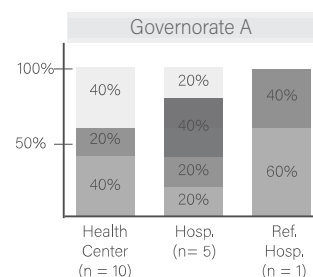
Service availability

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 [annex I](#).



Service availability per population (heat map)

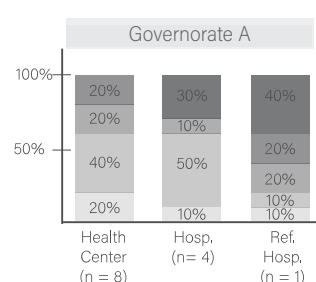
Service	Governorate A	Governorate B	Governorate C	Governorate D	Governorate E
Service 1	0.9	0	0.4	2.1	0.7
Service 2	0.4	0	0.9	3.5	0.7
Service 3	0.3	0	0.7	0.3	0.2
Service 4	0.8	0	0.4	0.8	0.6
Service 5	0.5	0	0.9	1.9	0.8

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 [annex II](#).

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

Service	Governorate A	Governorate B	Governorate C	Governorate D	Governorate E
Service 1	2 20%	8 80%	5 50%	1 10%	5 50%
Service 2	6 60%	2 20%	1 10%	5 50%	7 70%
Service 3	8 80%	4 40%	4 40%	7 70%	2 20%
Service 4	3 30%	7 70%	1 10%	5 50%	5 50%
Service 5	1 10%	3 30%	2 20%	3 30%	3 30%

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.

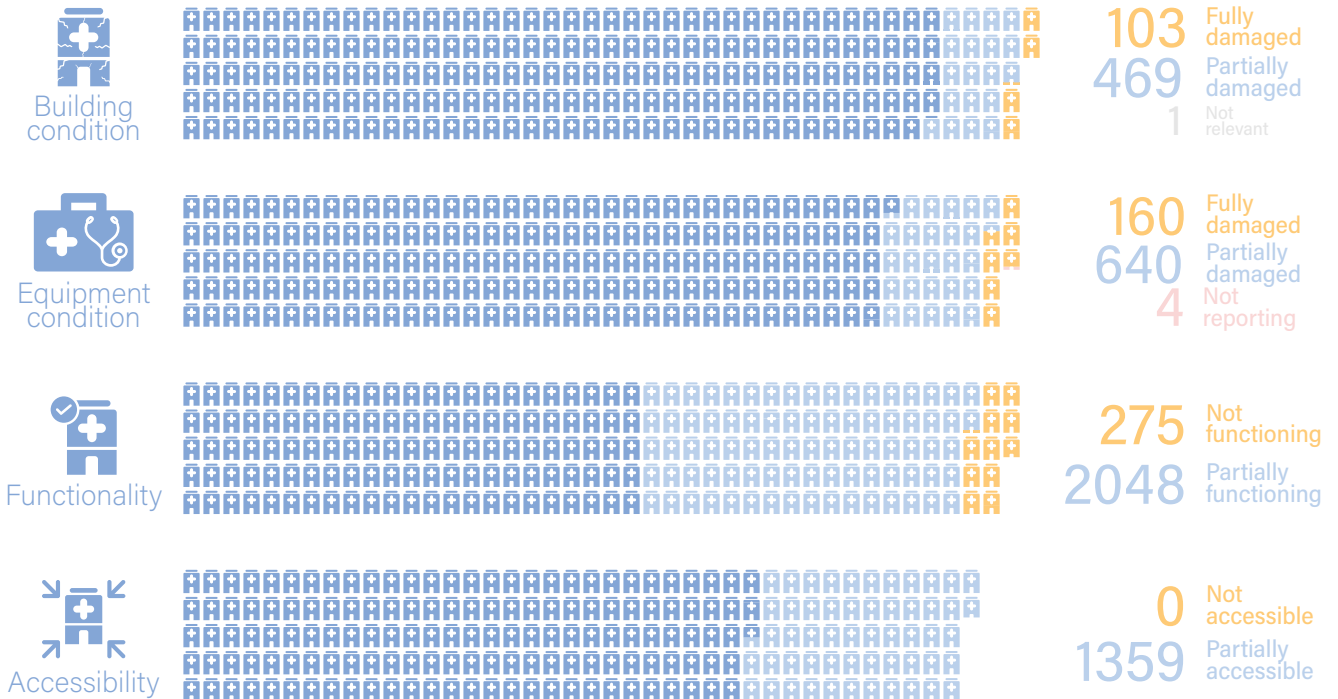
OVERVIEW OF HEALTH FACILITIES ASSESSED

Summary of health facilities assessed

5536 targeted health facilities

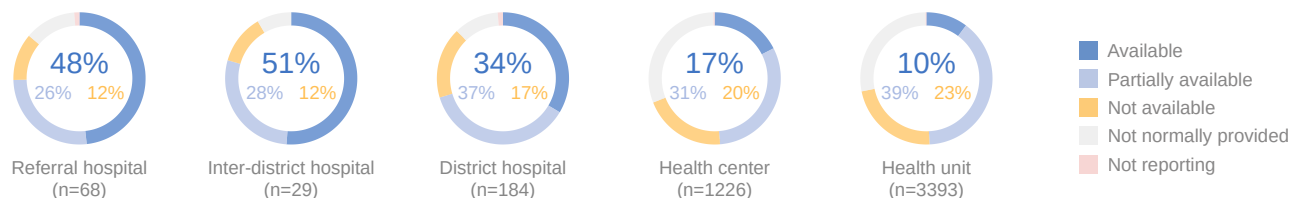


5301 health facilities assessed

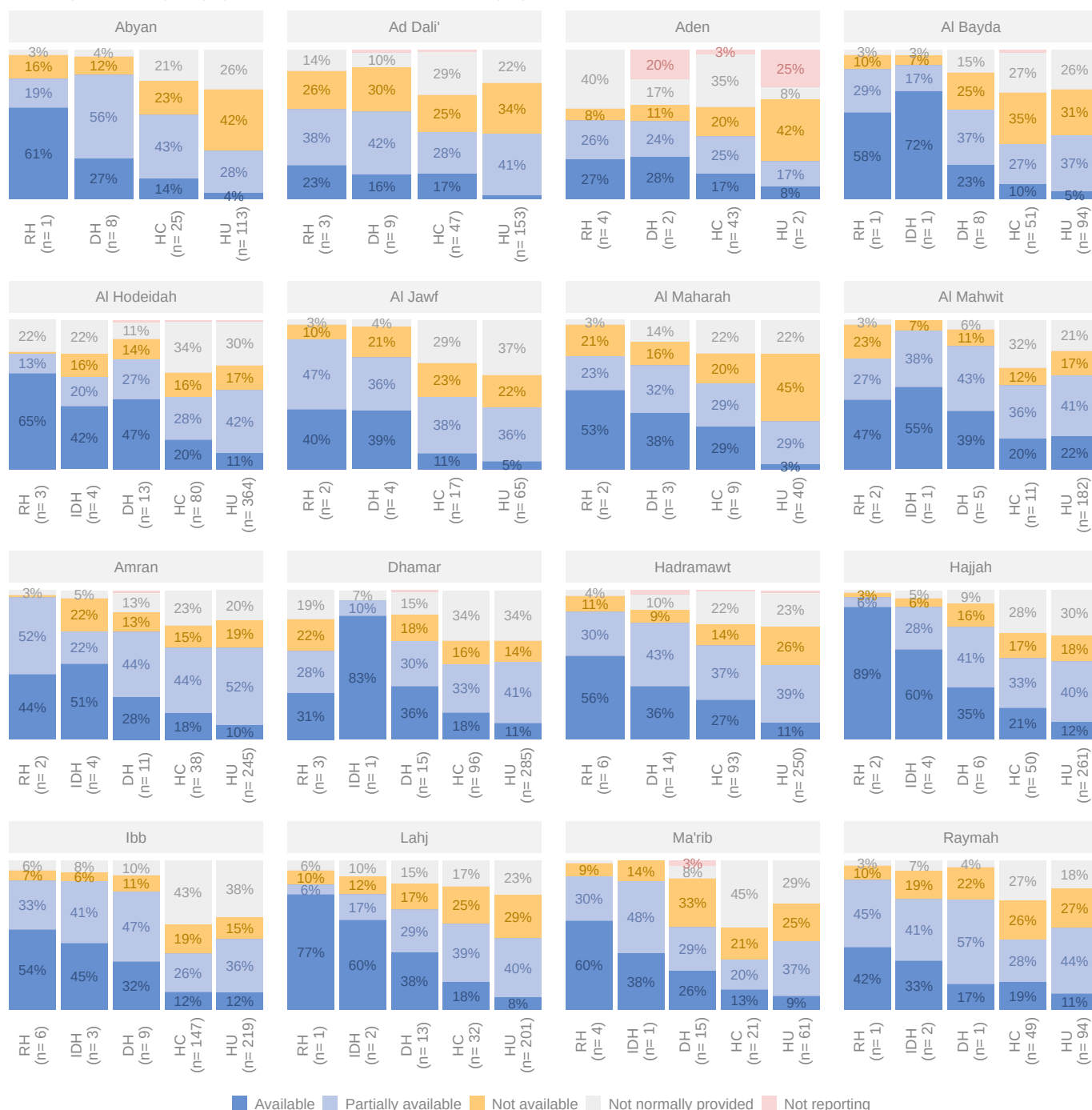


AVAILABILITY OF SERVICE PACKAGE AND MAIN BARRIERS

Package coverage by health facility type⁶

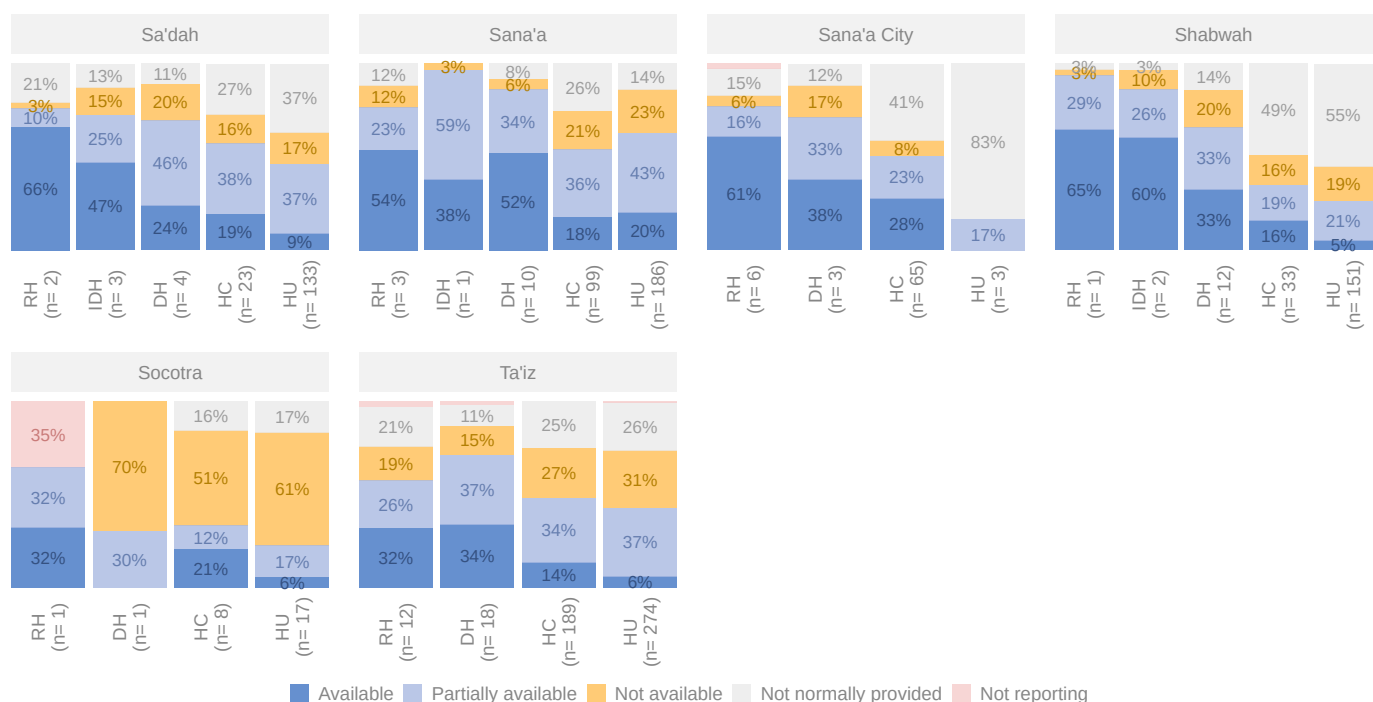


Package coverage by governorate and health facility type⁶

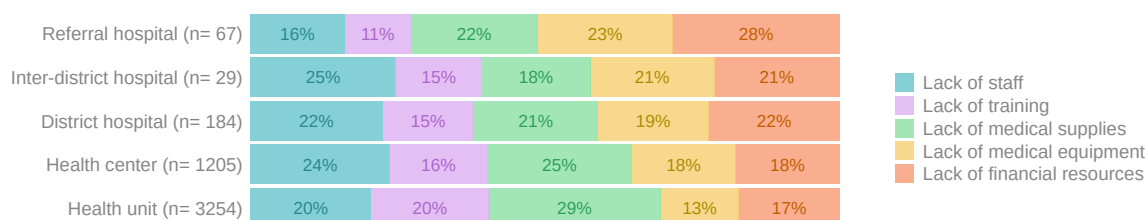


⁶ Number of services included may vary from one health facility type to another. The "Other" HF type has been excluded as it includes very different and specialized HFs. See [Annex I](#) for a full description of the services included for each health facility type.

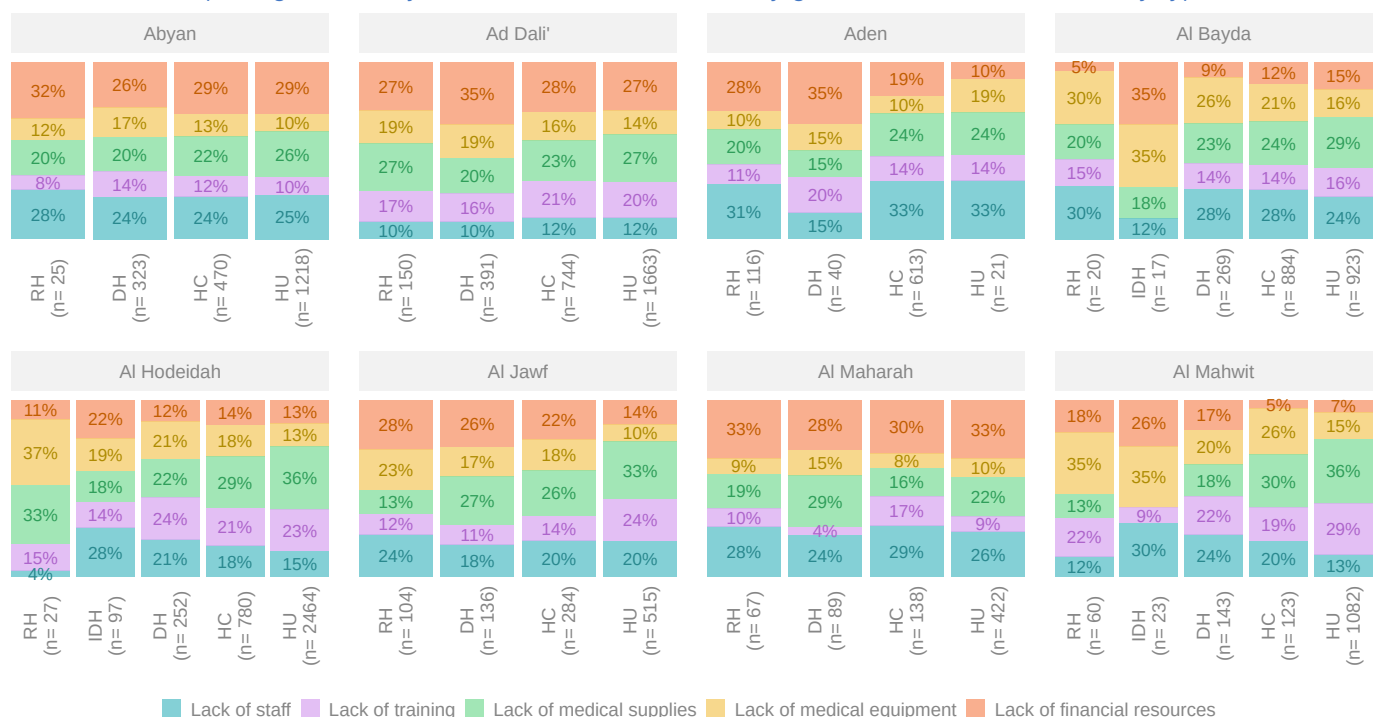
Availability of essential services by governorate and health facility type (cont.)



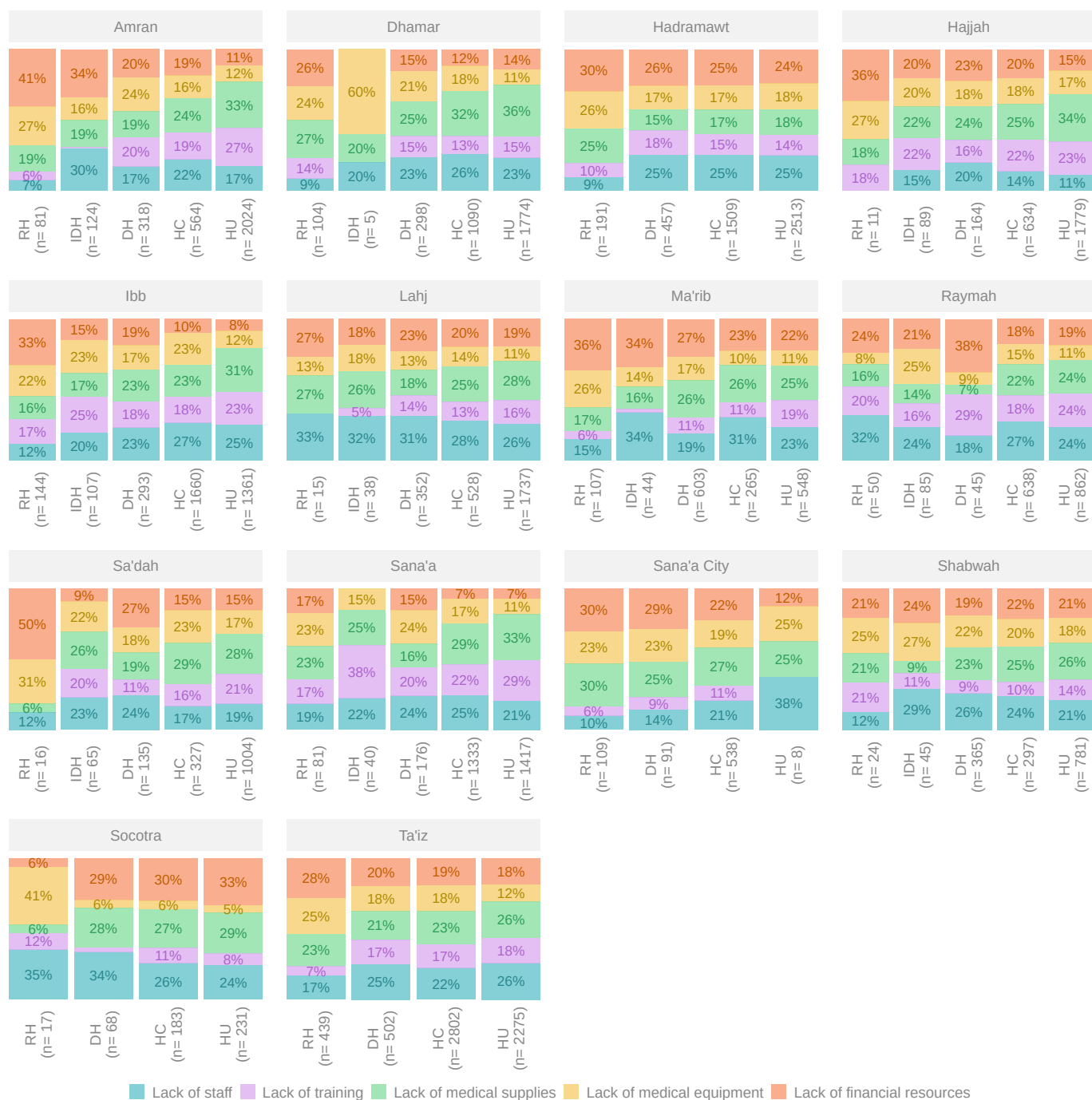
Main barriers impeding availability of essential health services by health facility type



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



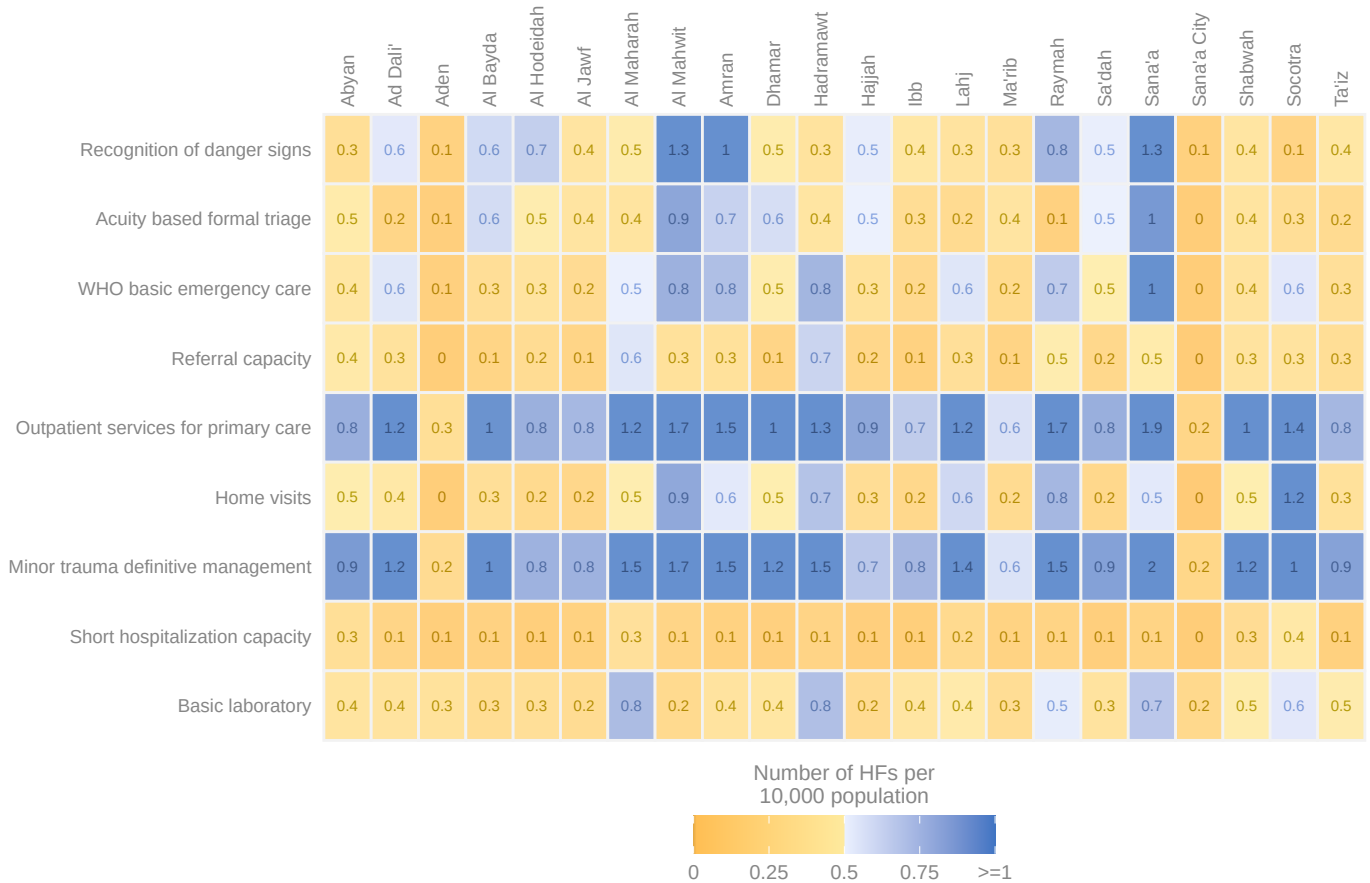
Main barriers impeding availability of essential health services by governorate and health facility type



SERVICE AVAILABILITY BY CATCHMENT POPULATION

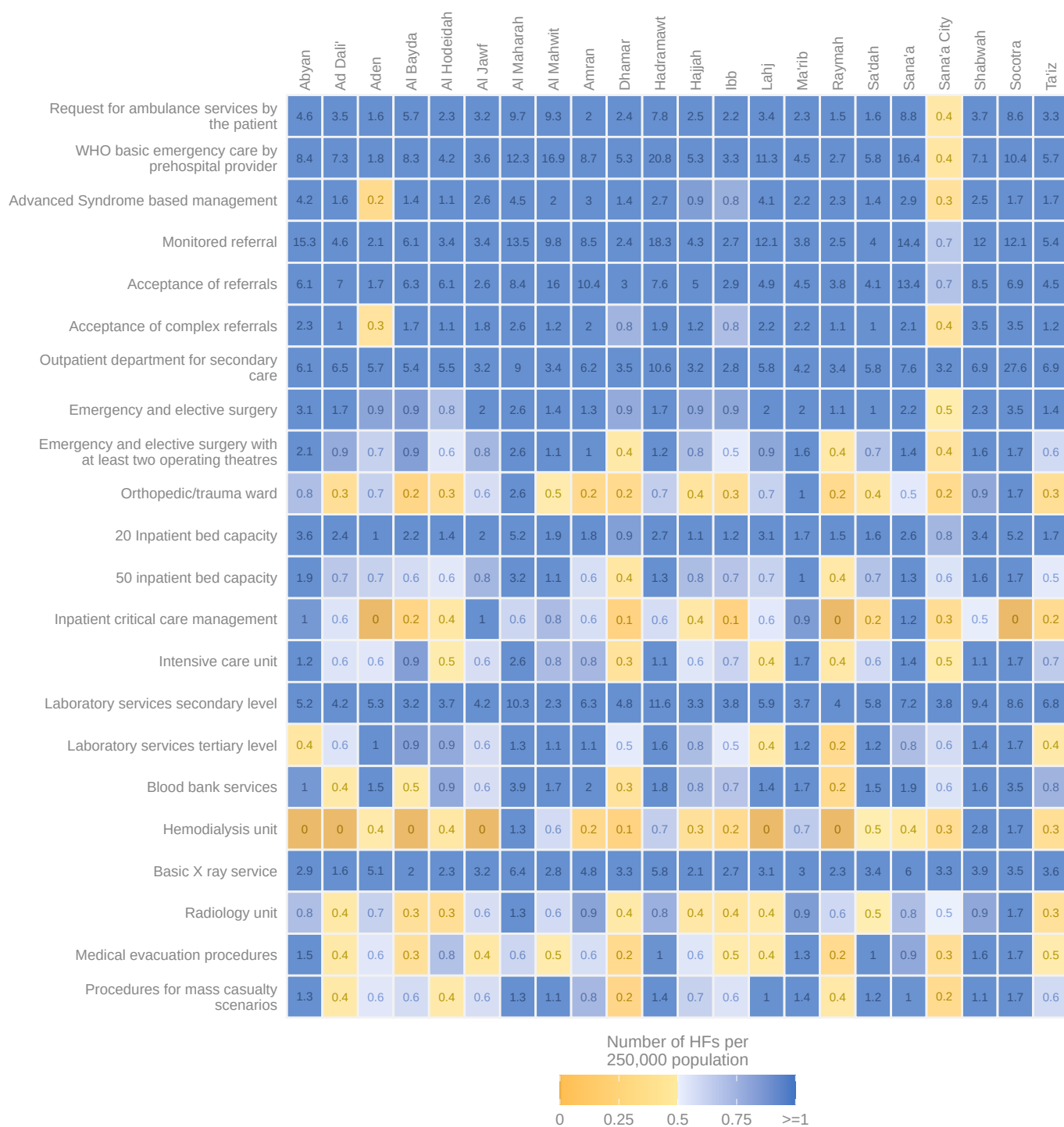
Note: While the average number of health facilities providing essential health services per population is a useful metric for high-level comparisons, it is recommended that geospatial accessibility models be developed. By taking into account additional factors such as travel time, these models provide 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 population⁷



⁷ 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 population⁸



⁸ 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

	Abyan					Ad Dali'					Aden					Al Bayda					Al Hodeidah				
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	40	67	27	76	38	124	106	66	102	27	16	15	8	16	65	53	61	55	31	67	137	161	60	63
	65%	38%	63%	25%	72%	22%	73%	63%	39%	60%	93%	55%	52%	28%	55%	60%	49%	56%	50%	28%	28%	57%	67%	25%	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	24	92	20	81	47	69	138	39	113	20	8	20	5	4	55	36	106	28	38	68	86	277	45	72
	61%	21%	81%	18%	71%	28%	41%	83%	23%	68%	91%	36%	91%	23%	18%	49%	32%	95%	25%	34%	23%	29%	93%	15%	24%
Short hospitalization capacity	22	7	32	27	13	12	9	17	6	22	4		3	2	2	7	1	7	5	4	5	3	5	15	2
	54%	17%	78%	66%	32%	50%	38%	71%	25%	92%	80%		60%	40%	40%	70%	10%	70%	50%	40%	29%	18%	29%	88%	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%
	Al Jawf					Al Maharah					Al Mahwit					Amran					Dhamar				
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	31	12	5	25	7	4	6		6	32	56	16	7	3	101	136	49	22	55	86	73	82	11	24
	49%	69%	27%	11%	56%	64%	36%	55%		5	46%	81%	23%	10%	4%	48%	64%	23%	10%	26%	56%	48%	54%	7%	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		13	4	15	7	4	7	1	4	1	1	1	7	2	4	2	9	2	6	3	2	6	5	7
	82%		76%	24%	88%	70%	40%	70%	10%	40%	12%	12%	12%	88%	25%	40%	20%	90%	20%	60%	21%	14%	43%	36%	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%
	Hadramawt					Hajjah					Ibb					Lahj					Ma'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	81	166	81	141	35	47	168	45	61	132	105	246	59	48	104	55	168	15	78	38	14	49	9	34
	63%	33%	69%	33%	58%	20%	27%	96%	26%	35%	48%	38%	89%	21%	17%	54%	29%	88%	8%	41%	67%	25%	86%	16%	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	4	6	3	6	6	9	10	14	17	30	28	24	6	4	21	8	17	5	12	7	3	8	4	7
	92%	33%	50%	25%	50%	22%	33%	37%	52%	63%	94%	88%	75%	19%	12%	81%	31%	65%	19%	46%	70%	30%	80%	40%	70%
Basic laboratory	151	57	89	127	160	17	13	34	38	33	87	17	48	111	53	51	10	51	13	28	23	8	26	18	30
	72%	27%	42%	60%	76%	26%	20%	52%	58%	51%	56%	11%	31%	72%	34%	71%	14%	71%	18%	39%	58%	20%	65%	45%	75%

% of HFs reporting a barrier
 1% 25% 50% 75% 100%

Type of barrier
 Lack of staff
 Lack of training
 Lack of medical supplies
 Lack of medical equipment
 Lack of financial resources

Main barriers impeding availability of essential community and primary health services by governorate (cont.)

	Raymah					Sa'dah					Sana'a					Sana'a City					Shabwah				
Recognition of danger signs	37 51%	52 72%	25 35%	15 21%	16 22%	40 38%	66 62%	44 42%	50 47%	24 23%	97 43%	165 73%	135 59%	43 19%	22 10%	18 50%	14 39%	21 58%	17 47%	18 50%	20 56%	20 56%	16 44%	15 42%	9 25%
Acuity-based formal triage	46 56%	33 40%	19 23%	10 12%	38 46%	32 38%	58 69%	16 19%	20 24%	16 19%	96 42%	162 71%	82 36%	11 5%	35 15%	7 30%	16 70%	5 22%	5 22%	14 61%	22 54%	23 56%	8 20%	10 24%	11 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%	4 100%	3 100%	3 100%	3 100%	3 100%	3 100%	1 33%	2 67%	3 100%	2 67%	2 67%	1 100%	1 100%	1 100%	1 100%	1 100%	4 50%	6 75%	6 75%	4 50%	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%	3 60%	15 38%	5 13%	23 59%	17 44%	18 46%
	Socotra					Ta'iz																			
Recognition of danger signs	6 75%	3 38%	7 88%	8 100%	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%	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%	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 HFs reporting a barrier

1% 25% 50% 75% 100%

Type of barrier

Lack of staff
Lack of training
Lack of medical supplies
Lack of medical equipment
Lack of financial resources

Main barriers impeding availability of specialized services by governorate

	Abyan					Ad Dali'					Aden					Al Bayda					Al Hodeidah				
Request for ambulance services by the patient	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
	53%	23%	45%	49%	83%	12%	33%	22%	75%	88%	76%	36%	40%	60%	60%	49%	37%	37%	75%	29%	40%	17%	19%	81%	38%
WHO basic emergency care by prehospital provider	72	41	67	27	77	21	88	52	59	96	23	13	14	6	11	53	52	48	46	22	41	68	63	50	44
	66%	38%	61%	25%	71%	17%	70%	42%	47%	77%	96%	54%	58%	25%	46%	56%	55%	51%	49%	23%	30%	50%	47%	37%	33%
Advanced Syndrome-based management	19	13	18	7	14	5	10	9	9	14	6	4	2	4	1	4	3	4	5	1	6	10	4	7	
	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	35	45	36	81	29	75	36	69	109	19	11	14	5	9	56	45	23	52	26	28	49	37	39	40
	67%	35%	45%	36%	80%	21%	55%	26%	50%	80%	90%	52%	67%	24%	43%	63%	51%	26%	58%	29%	29%	51%	39%	41%	42%
Acceptance of referrals	35	17	20	12	34	14	31	22	28	39	20	15	14	3	13	43	41	31	46	18	24	47	44	49	48
	80%	39%	45%	27%	77%	26%	57%	41%	52%	72%	80%	60%	56%	12%	52%	56%	53%	40%	60%	23%	21%	42%	39%	43%	42%
Acceptance of complex referrals	20	12	14	7	13	3	7	5	7	10	2	1	1	1	1	5	3	4	6	4	5	6	2	2	2
	87%	52%	61%	30%	57%	27%	64%	45%	64%	91%	100%	50%	50%	50%	50%	62%	38%	50%	75%	50%	71%	86%	29%	29%	29%
Outpatient department for secondary care	36	7	38	17	36	20	20	41	12	37	24	7	22	2	15	51	18	52	25	22	64	37	105	16	39
	72%	14%	76%	34%	72%	39%	39%	80%	24%	73%	96%	28%	88%	8%	60%	74%	26%	75%	36%	32%	49%	28%	80%	12%	30%
Emergency and elective surgery	25	14	25	7	21	8	9	9	6	14	2	1	2	2	4	9		8	4	1	10	4	10	5	2
	76%	42%	76%	21%	64%	47%	53%	53%	35%	82%	50%	25%	50%	50%	100%	90%		80%	40%	10%	77%	31%	77%	38%	15%
Emergency and elective surgery with at least two operating theatres	12	2	13	3	12	4	3	4	2	6	2	1	2		2	4		3	3		6	4	6	4	2
	86%	14%	93%	21%	86%	50%	38%	50%	25%	75%	67%	33%	67%		67%	80%		60%	60%		60%	40%	60%	40%	20%
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%	69%	50%	38%	38%	50%	75%	67%	67%	33%	33%	100%	100%		67%	50%		50%	30%	70%	40%	30%
20 Inpatient bed capacity	10	3	7	11	8	3	5	8	7	10	3	1	2	4	3	5		4	5	3	4	3	5	5	3
	67%	20%	47%	73%	53%	25%	42%	67%	58%	83%	60%	20%	40%	80%	60%	71%		57%	71%	43%	44%	33%	56%	56%	33%
50 inpatient bed capacity	9	2	5	5	7	2		3	3	5	2		1		2	2			2	1	6	3	5	3	5
	82%	18%	45%	45%	64%	20%		60%	60%	100%	100%		50%		100%	100%			100%	50%	67%	33%	56%	33%	56%
Inpatient critical care management	11	1	9	3	8	2	3	4	4	7	1	1			1	2		2	1		4	4	5	6	2
	85%	8%	69%	23%	62%	25%	38%	50%	50%	88%	100%	100%			100%	100%		100%	50%		44%	44%	56%	67%	22%
Intensive care unit	6	1	5	4	6	3	4	4	8	8	1	1	4	2	2	4		2	3		7	1	4	8	4
	75%	12%	62%	50%	75%	30%	40%	40%	80%	80%	25%	25%	100%	50%	50%	100%		50%	75%		70%	10%	40%	80%	40%
Laboratory services secondary level	27	5	21	22	29	9	16	25	20	37	26	5	23	9	19	38	3	35	31	21	13	13	25	22	21
	71%	13%	55%	58%	76%	20%	36%	56%	44%	82%	87%	17%	77%	30%	63%	72%	6%	66%	58%	40%	26%	26%	50%	44%	42%
Laboratory services tertiary level	12	5	9	4	13	2	6	4	4	8	4	3	6	3	7	6	2	5	8	3	4	3	9	7	11
	75%	31%	56%	25%	81%	20%	60%	40%	40%	80%	44%	33%	67%	33%	78%	75%	25%	62%	100%	38%	25%	19%	56%	44%	69%
Blood bank services	13	2	12	10	17		5	4	6	9	1		4	2	2	6		6	5	1	2	3	9	9	11
	68%	11%	63%	53%	89%		45%	36%	55%	82%	25%		100%	50%	50%	86%		86%	71%	14%	12%	18%	53%	53%	65%
Hemodialysis unit	7	4	7	6	6	1	1	2	1	3	2		1		2	4		2	4	1	3		3	1	3
	70%	40%	70%	60%	60%	33%	33%	67%	33%	100%	100%		50%		100%	100%		50%	100%	25%	75%		75%	25%	75%
Basic X-ray service	26	11	16	21	24	14	10	10	28	30	25	10	20	13	14	44	5	18	42	22	34	8	14	40	18
	72%	31%	44%	58%	67%	38%	27%	27%	76%	81%	78%	31%	62%	41%	44%	85%	10%	35%	81%	42%	59%	14%	24%	69%	31%
Radiology unit	11	4	5	12	9	3	3	1	4	7	2		4	2	4	8	2	4	11	2	4	1	4	9	7
	73%	27%	33%	80%	60%	43%	43%	14%	57%	100%	40%		80%	40%	80%	73%	18%	36%	100%	18%	36%	9%	36%	82%	64%
Medical evacuation procedures	9	4	10	5	10		2		3	3	3	1	1	2	3	1	3		3		1	1	1	3	1
	64%	29%	71%	36%	71%		67%		100%	100%	75%	25%	25%	50%	75%	33%	100%		100%		33%	33%	33%	100%	33%
Procedures for mass casualty scenarios	10	1	13	6	9	2	2	3	7	5	1	1	1	1	1	2	2		3	1	3	3	1	4	2
	71%	7%	93%	43%	64%	29%	29%	43%	100%	71%	50%	50%	50%	50%	50%	50%	50%		75%	25%	43%	43%	14%	57%	29%

% of HFs reporting a barrier

■ 1% ■ 25% ■ 50% ■ 75% ■ 100%

Type of barrier

■ Lack of staff ■ Lack of training ■ Lack of medical supplies ■ Lack of medical equipment ■ Lack of financial resources

Main barriers impeding availability of specialized services by governorate (cont.)

	Al Jawf					Al Maharah					Al Mahwit					Amran					Dhamar				
Request for ambulance services by the patient	8	12	10	24	22	4	3	4	8	6	14	11	16	56	37	15	61	23	88	38	35	28	26	73	27
	27%	40%	33%	80%	73%	33%	25%	33%	67%	50%	15%	12%	17%	59%	39%	12%	50%	19%	72%	31%	33%	26%	24%	68%	25%
WHO basic emergency care by prehospital provider	20	15	17	22	19	28	21	16	7	26	30	53	53	28	3	58	103	61	39	37	74	61	79	46	39
	54%	41%	46%	59%	51%	64%	48%	36%	16%	59%	33%	58%	58%	31%	3%	38%	68%	40%	26%	24%	50%	41%	53%	31%	26%
Advanced Syndrome-based management	5	3	4	2	3	5	3	7	5	4	5	8	5	4	2	10	15	13	3	5	4	6	9	4	3
	83%	50%	67%	33%	50%	56%	33%	78%	56%	44%	42%	67%	42%	33%	17%	48%	71%	62%	14%	24%	31%	46%	69%	31%	23%
Monitored referral	15	14	6	19	18	31	18	11	12	23	41	35	20	38	6	70	65	34	64	53	42	51	25	55	34
	48%	45%	19%	61%	58%	69%	40%	24%	27%	51%	48%	41%	24%	45%	7%	46%	43%	22%	42%	35%	39%	47%	23%	51%	31%
Acceptance of referrals	14	11	13	10	15	6	4	5	1	5	23	41	32	36	4	47	78	49	51	40	30	33	22	43	37
	52%	41%	48%	37%	56%	60%	40%	50%	10%	50%	32%	56%	44%	49%	5%	34%	56%	35%	37%	29%	32%	35%	23%	45%	39%
Acceptance of complex referrals	6		4	4	4	3	2	1	3	3	7	5	3	6	2	6	6	5	6	4	3	7	6	2	5
	100%		67%	67%	67%	60%	40%	20%	60%	60%	70%	50%	30%	60%	20%	55%	55%	45%	55%	36%	25%	58%	50%	17%	42%
Outpatient department for secondary care	14	6	20	4	11	7	2	6	2	9	27	3	18	6	2	46	28	65	10	26	77	13	90	19	16
	64%	27%	91%	18%	50%	70%	20%	60%	20%	90%	87%	10%	58%	19%	6%	55%	34%	78%	12%	31%	75%	13%	87%	18%	16%
Emergency and elective surgery	3	1	3	3	4	4	2	3	2	3	7	2	2	4	1	11	2	8	7	6	9	4	9	5	3
	60%	20%	60%	60%	80%	80%	40%	60%	40%	60%	100%	29%	29%	57%	14%	79%	14%	57%	50%	43%	75%	33%	75%	42%	25%
Emergency and elective surgery with at least two operating theatres	2		2	1	3	2		2		2	6	1	1	4	3	5	1	5	2	3	5		2	4	5
	67%		67%	33%	100%	100%		100%		100%	86%	14%	14%	57%	43%	83%	17%	83%	33%	50%	71%		29%	57%	71%
Orthopedic/trauma ward	4		2	2	4	3		2		3	6	2	1	3	1	5		2	3	3	5	1	4	2	5
	100%		50%	50%	100%	100%		67%		100%	100%	33%	17%	50%	17%	100%		40%	60%	60%	71%	14%	57%	29%	71%
20 Inpatient bed capacity	5	1	3	4	7	3	1	2	2	1	4	1		6	4	8	3	7	2	6	5	1	7	8	9
	71%	14%	43%	57%	100%	100%	33%	67%	67%	33%	57%	14%		86%	57%	73%	27%	64%	18%	55%	33%	7%	47%	53%	60%
50 inpatient bed capacity	3		3	2	3	2		2		2	7	2	4	3	3	4		2	5	5	4	1	4	5	5
	75%		75%	50%	75%	100%		100%		100%	100%	29%	57%	43%	43%	67%		33%	83%	83%	40%	10%	40%	50%	50%
Inpatient critical care management	2	1	3		4	3	2			2	6	2	3	3	2	2		4	1	4	1		1	4	1
	50%	25%	75%		100%	100%	67%			67%	86%	29%	43%	43%	29%	50%		100%	25%	100%	25%		25%	100%	25%
Intensive care unit	3		2	2	3	3		2	1	3	5	3	2	6	2	6	2	3	5	3	3		2	5	2
	75%		50%	50%	75%	100%		67%	33%	100%	71%	43%	29%	86%	29%	86%	29%	43%	71%	43%	50%		33%	83%	33%
Laboratory services secondary level	10	4	15	8	13	4	1	8	7	8	4		4	7	4	15	8	25	19	20	19	9	62	25	35
	48%	19%	71%	38%	62%	40%	10%	80%	70%	80%	44%		44%	78%	44%	38%	21%	64%	49%	51%	23%	11%	77%	31%	43%
Laboratory services tertiary level	3	2	9	7	10	2	1	2		3	1	1	2	4	1	5	3	4	9	11	5	5	13	11	15
	27%	18%	82%	64%	91%	67%	33%	67%		100%	20%	20%	40%	80%	20%	38%	23%	31%	69%	85%	19%	19%	48%	41%	56%
Blood bank services	3	2	3	3	3	4		2	2	5			3	3	3	4	4	7	9	9	2	2	6	9	6
	60%	40%	60%	60%	60%	80%		40%	40%	100%			75%	75%	75%	31%	31%	54%	69%	69%	14%	14%	43%	64%	43%
Hemodialysis unit	3	1	3		2	3		2	1	3	1	1	1	2	1	2	1	2	3	3	3	1		3	1
	100%	33%	100%		67%	100%		67%	33%	100%	50%	50%	50%	100%	50%	50%	25%	50%	75%	75%	75%	25%		75%	25%
Basic X-ray service	22	2	8	22	7	7	5	8	3	8	13		5	14	2	28	5	6	26	15	74	4	31	68	27
	81%	7%	30%	81%	26%	58%	42%	67%	25%	67%	76%		29%	82%	12%	74%	13%	16%	68%	39%	84%	5%	35%	77%	31%
Radiology unit	5	2	4	5	3	3	1	3	1	4	3	2	2	5	4	10	4	3	12	11	6	2	3	6	4
	71%	29%	57%	71%	43%	75%	25%	75%	25%	100%	43%	29%	29%	71%	57%	62%	25%	19%	75%	69%	60%	20%	30%	60%	40%
Medical evacuation procedures	3	1		5	5	3	1	2	1	2	1	3	1	4	2	4	2	4	5	5	2	1		3	
	60%	20%		100%	100%	100%	33%	67%	33%	67%	20%	60%	20%	80%	40%	50%	25%	50%	62%	62%	67%	33%		100%	
Procedures for mass casualty scenarios	4	2	1	3	4	3		2		3	3	5	3		1	4	3	4	5	4	2	2	2	4	1
	80%	40%	20%	60%	80%	100%		67%		100%	50%	83%	50%		17%	50%	38%	50%	62%	50%	29%	29%	29%	57%	14%

% of HFs reporting a barrier



Type of barrier



Main barriers impeding availability of specialized services by governorate (cont.)

	Hadramawt					Hajjah					Ibb					Lahj					Ma'rib				
Request for ambulance services by the patient	71	38	31	60	86	14	43	38	71	44	48	51	36	43	44	24	18	9	32	26	11	15	17	27	29
	64%	34%	28%	54%	77%	13%	40%	35%	66%	41%	49%	53%	37%	44%	45%	47%	35%	18%	63%	51%	28%	38%	42%	68%	72%
WHO basic emergency care by prehospital provider	168	116	107	138	142	35	81	57	50	33	64	83	75	45	36	98	101	94	43	70	33	23	32	23	33
	67%	47%	43%	55%	57%	28%	64%	45%	40%	26%	44%	57%	51%	31%	25%	55%	57%	53%	24%	39%	61%	43%	59%	43%	61%
Advanced Syndrome-based management	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
	59%	77%	59%	36%	55%	45%	64%	73%	18%	18%	44%	67%	50%	39%	50%	52%	48%	56%	22%	41%	64%	40%	76%	44%	52%
Monitored referral	167	99	75	149	154	23	63	26	63	34	62	86	38	54	36	88	75	54	76	71	28	25	18	25	33
	68%	40%	30%	61%	63%	21%	56%	23%	56%	30%	48%	66%	29%	42%	28%	51%	43%	31%	44%	41%	54%	48%	35%	48%	63%
Acceptance of referrals	67	50	32	39	66	15	55	35	61	45	43	75	41	39	24	23	23	20	11	27	17	14	17	17	17
	69%	52%	33%	40%	68%	15%	54%	34%	60%	44%	39%	68%	37%	35%	22%	53%	53%	47%	26%	63%	53%	44%	53%	53%	53%
Acceptance of complex referrals	9	15	4	8	11	3	2	2	2		7	11	6	4	6	6	6	5	1	6	9	6	17	15	15
	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	32	62	43	70	43	20	43	15	22	83	26	77	18	35	35	20	31	6	24	25	6	23	7	20
	83%	29%	56%	39%	64%	67%	31%	67%	23%	34%	73%	23%	69%	16%	31%	76%	43%	67%	13%	52%	83%	20%	77%	23%	67%
Emergency and elective surgery	16	5	11	6	14	5	2	5	4	4	15	2	8	7	11	12	6	7	1	8	18	8	22	20	13
	89%	28%	61%	33%	78%	56%	22%	56%	44%	44%	88%	12%	47%	41%	65%	86%	43%	50%	7%	57%	60%	27%	73%	67%	43%
Emergency and elective surgery with at least two operating theatres	5		3	6	7	2	1	3	4	3	8	3	7	7	5	4	1	2	2	3	5	2	11	6	7
	62%		38%	75%	88%	33%	17%	50%	67%	50%	73%	27%	64%	64%	45%	100%	25%	50%	50%	75%	45%	18%	100%	55%	64%
Orthopedic/trauma ward	11	4	6	5	10	7	2	3	4	4	6	5	7	5	5	7		5	1	5	8	3	6	5	7
	79%	29%	43%	36%	71%	88%	25%	38%	50%	50%	50%	42%	58%	42%	42%	100%		71%	14%	71%	73%	27%	55%	45%	64%
20 Inpatient bed capacity	9	2	4	5	8	2	1	3	3	4	4		2	3	3	8	3	4	1	6	6	1	6	6	10
	90%	20%	40%	50%	80%	29%	14%	43%	43%	57%	80%		40%	60%	60%	80%	30%	40%	10%	60%	50%	8%	50%	50%	83%
50 inpatient bed capacity	7	3	3	4	6	2		1	4	3	4	1	2	4	5	2		1	1	1	4		5	7	10
	88%	38%	38%	50%	75%	40%		20%	80%	60%	67%	17%	33%	67%	83%	100%		50%	50%	50%	40%		50%	70%	100%
Inpatient critical care management	7	7	4	6	7	2	3	3	3	2	3	1	3	4	7	7	2	6		4	3		3	4	2
	64%	64%	36%	55%	64%	40%	60%	60%	60%	40%	38%	12%	38%	50%	88%	100%	29%	86%		57%	43%		43%	57%	29%
Intensive care unit	11	8	6	6	10	2	1	3	5	5	8	5	5	4	3	11	3	9	2	6	6	2	3	3	7
	79%	57%	43%	43%	71%	29%	14%	43%	71%	71%	80%	50%	50%	40%	30%	92%	25%	75%	17%	50%	67%	22%	33%	33%	78%
Laboratory services secondary level	52	20	54	45	65	12	14	22	26	19	57	12	25	88	37	26	7	27	9	20	12	8	23	15	25
	61%	24%	64%	53%	76%	27%	31%	49%	58%	42%	55%	12%	24%	85%	36%	68%	18%	71%	24%	53%	41%	28%	79%	52%	86%
Laboratory services tertiary level	5	3	6	9	9	7	7	3	10	9	9	2	8	11	8	4		1	3	4	8	3	9	7	12
	38%	23%	46%	69%	69%	47%	47%	20%	67%	60%	50%	11%	44%	61%	44%	100%		25%	75%	100%	53%	20%	60%	47%	80%
Blood bank services	12	8	8	16	17	5	4	5	7	10	5	3	7	11	10	10	1	7	8	11	6	3	5	9	8
	55%	36%	36%	73%	77%	38%	31%	38%	54%	77%	38%	23%	54%	85%	77%	67%	7%	47%	53%	73%	50%	25%	42%	75%	67%
Hemodialysis unit	5	1	3	5	8	6		1	5	5	4	1	2	4	1	5	2	4	2	1	5	3	7	2	6
	62%	12%	38%	62%	100%	86%		14%	71%	71%	100%	25%	50%	100%	25%	100%	40%	80%	40%	20%	62%	38%	88%	25%	75%
Basic X-ray service	67	35	29	57	66	35	14	10	32	19	133	10	7	131	53	19	4	8	18	16	21	8	13	13	13
	73%	38%	32%	62%	72%	65%	26%	19%	59%	35%	84%	6%	4%	83%	34%	70%	15%	30%	67%	59%	75%	29%	46%	46%	46%
Radiology unit	8	5	5	12	14	8	7	2	13	9	11	4	2	13	9	2		1	2	2	7	4	6	8	13
	50%	31%	31%	75%	88%	38%	33%	10%	62%	43%	65%	24%	12%	76%	53%	67%		33%	67%	67%	47%	27%	40%	53%	87%
Medical evacuation procedures	7	3	3	9	10	1	3	1	3	2	3	4	2	5	4	3	2	2	2		7	1	5	7	12
	58%	25%	25%	75%	83%	20%	60%	20%	60%	40%	33%	44%	22%	56%	44%	75%	50%	50%	50%		54%	8%	38%	54%	92%
Procedures for mass casualty scenarios	8	8	6	7	10	1	3	3	3	2	3	4	1	3	3	8	3	4	3	5	5	7	9	5	12
	57%	57%	43%	50%	71%	20%	60%	60%	60%	40%	43%	57%	14%	43%	43%	100%	38%	50%	38%	62%	31%	44%	56%	31%	75%

% of HFs reporting a barrier

■ 1% ■ 25% ■ 50% ■ 75% ■ 100%

Type of barrier

■ Lack of staff ■ Lack of training ■ Lack of medical supplies ■ Lack of medical equipment ■ Lack of financial resources

Main barriers impeding availability of specialized services by governorate (cont.)

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

% of HFs reporting a barrier



Type of barrier



Main barriers impeding availability of specialized services by governorate (cont.)



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.



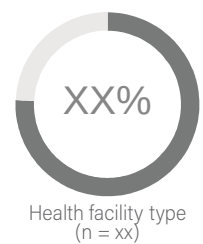
Column charts

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.

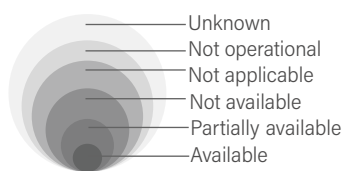


Donut charts

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 least partially available in all HSDUs have been omitted.

Map label:

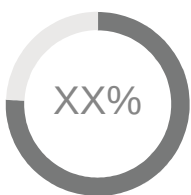
Governorate name
X / X%

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.

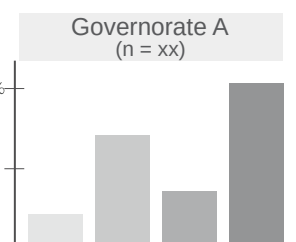
Donut charts

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

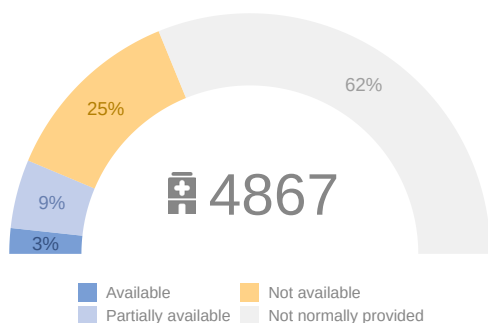
Bar charts depicting barriers follow the same logic as donut charts and exclude health facilities where the service was fully available. The number of health facilities reporting at least one barrier is displayed below the governorates' name.



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%.

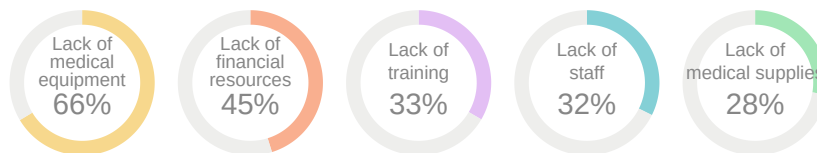
REQUEST FOR AMBULANCE SERVICES BY THE PATIENT

Overall service availability

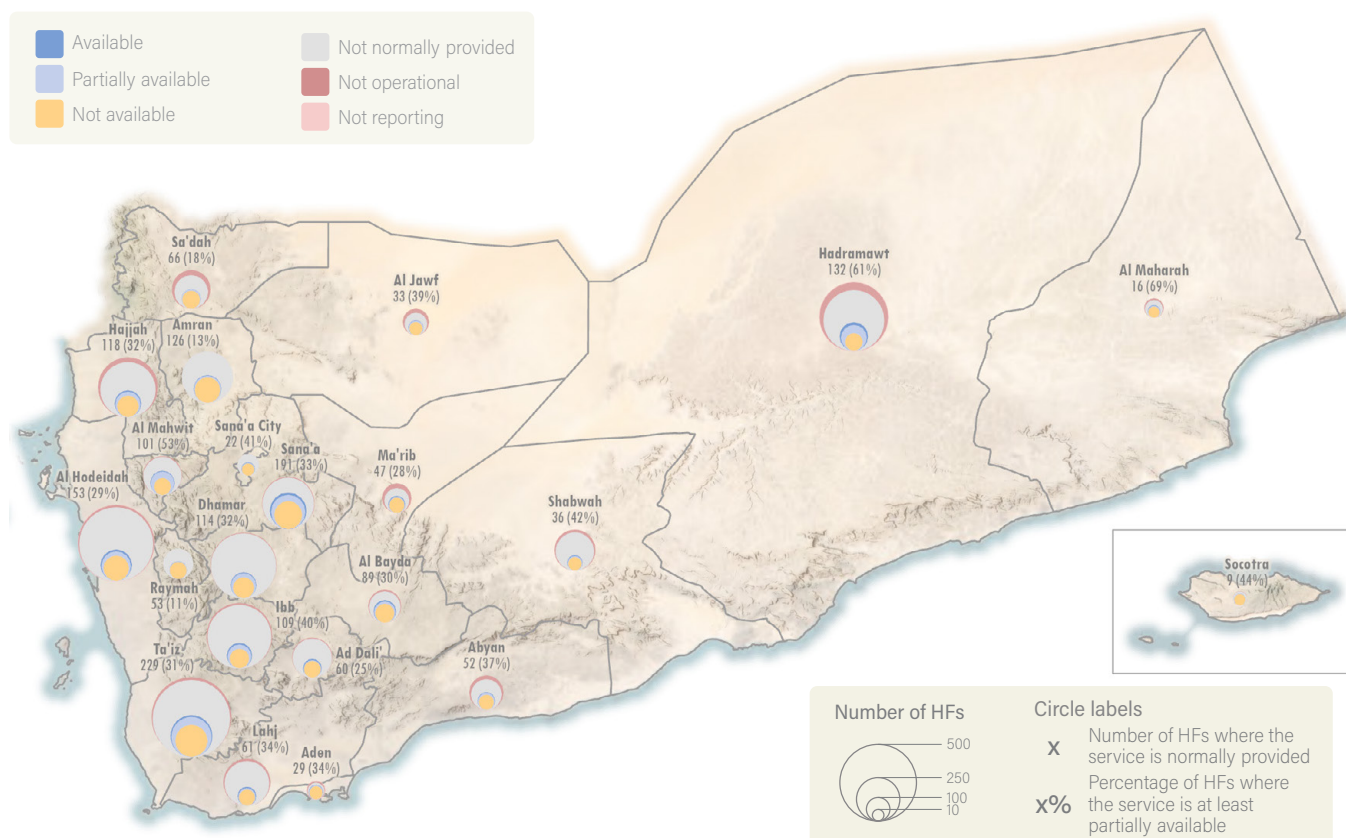
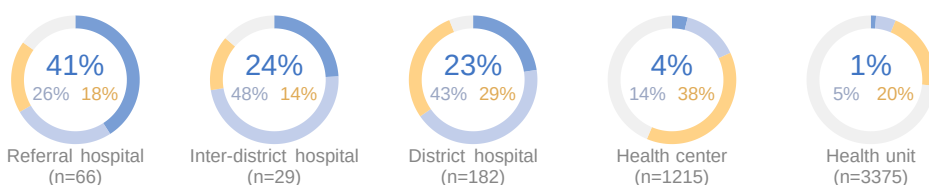


Main barriers impeding service delivery

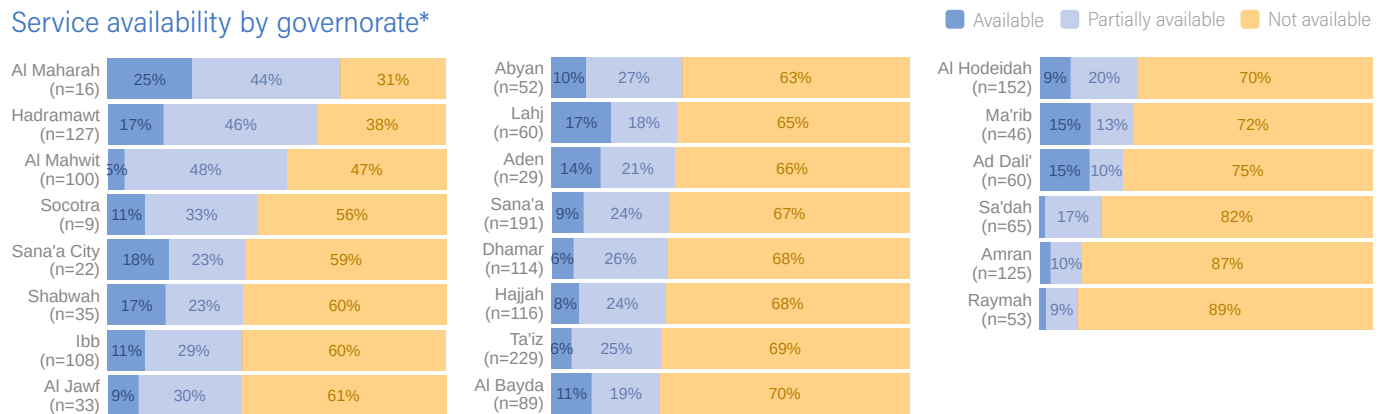
n = 1664



Service availability by type of HF



Service availability by governorate*



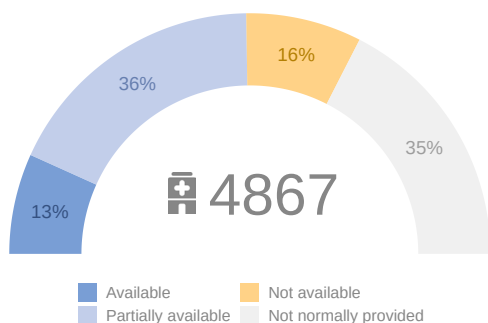
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

RECOGNITION OF DANGER SIGNS

Overall service availability

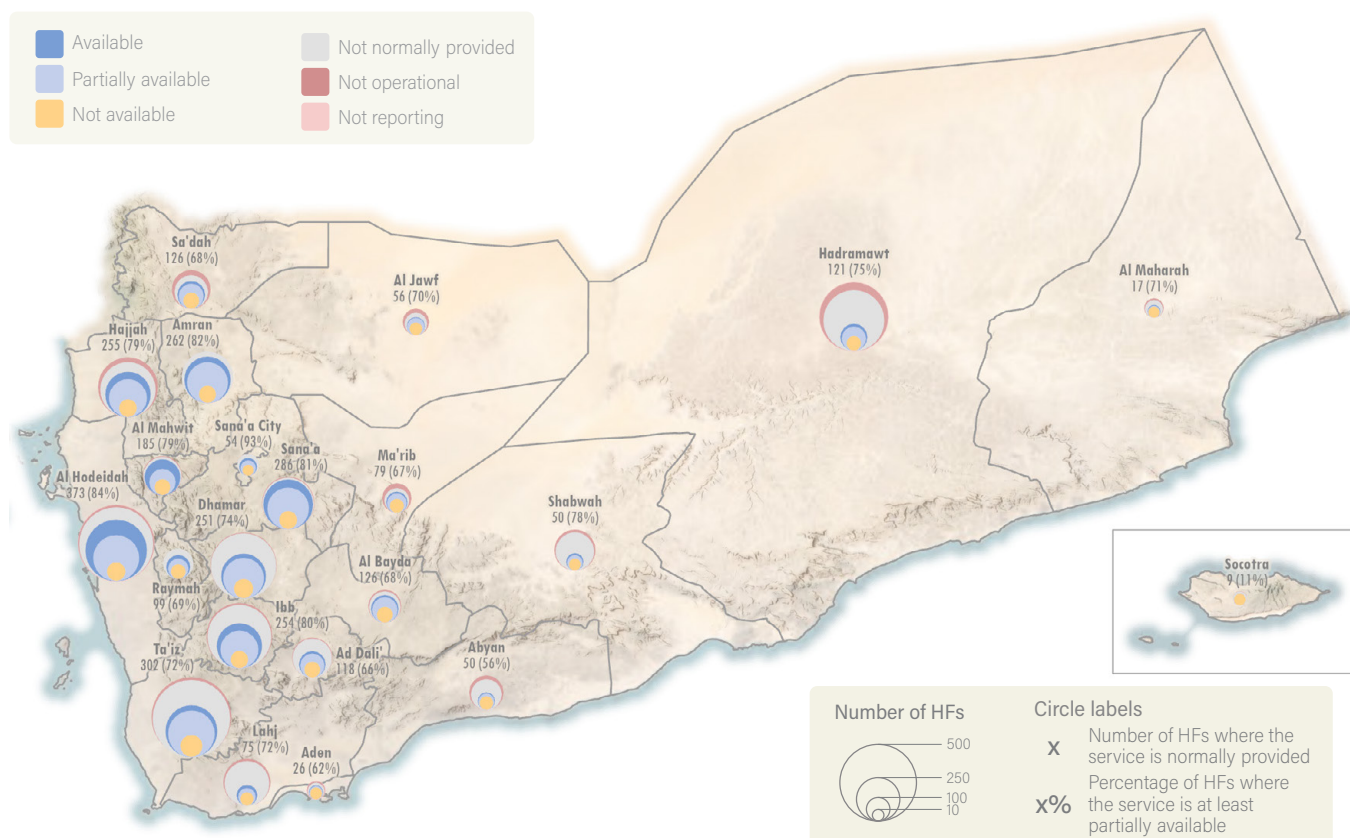
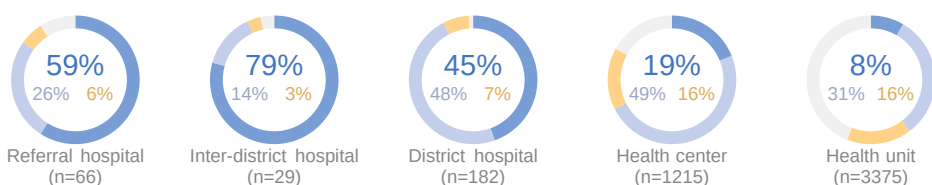


Main barriers impeding service delivery

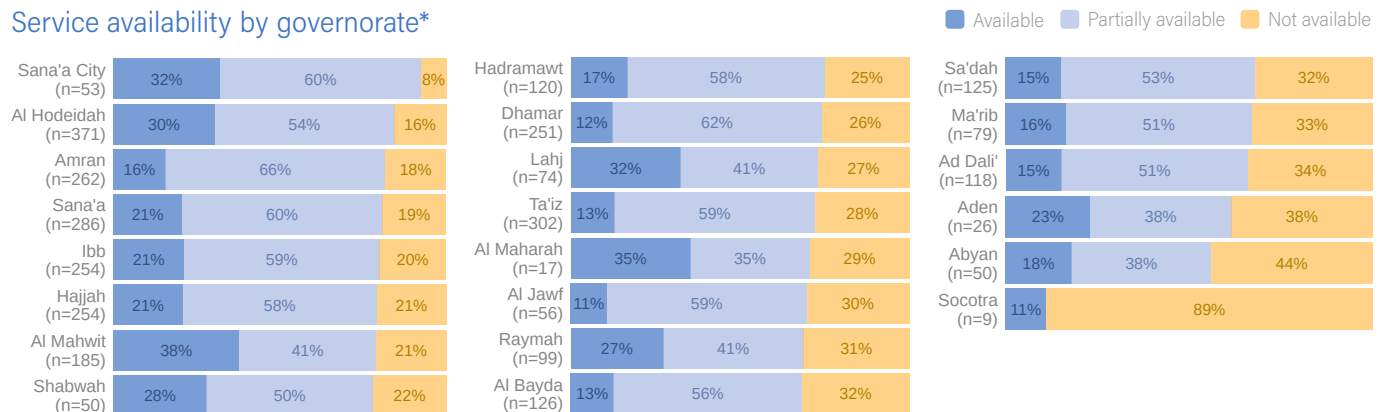
n = 2511



Service availability by type of HF



Service availability by governorate*



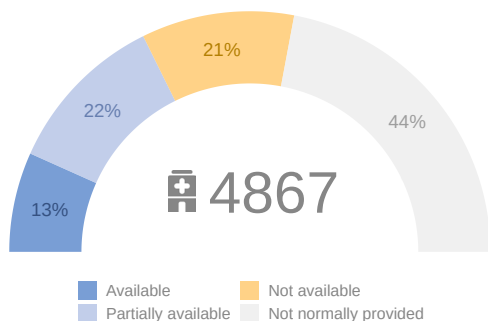
Main barriers impeding service delivery by governorate



* HFs with missing value or that reported "Not normally provided" are excluded.

ACUITY-BASED FORMAL TRIAGE

Overall service availability

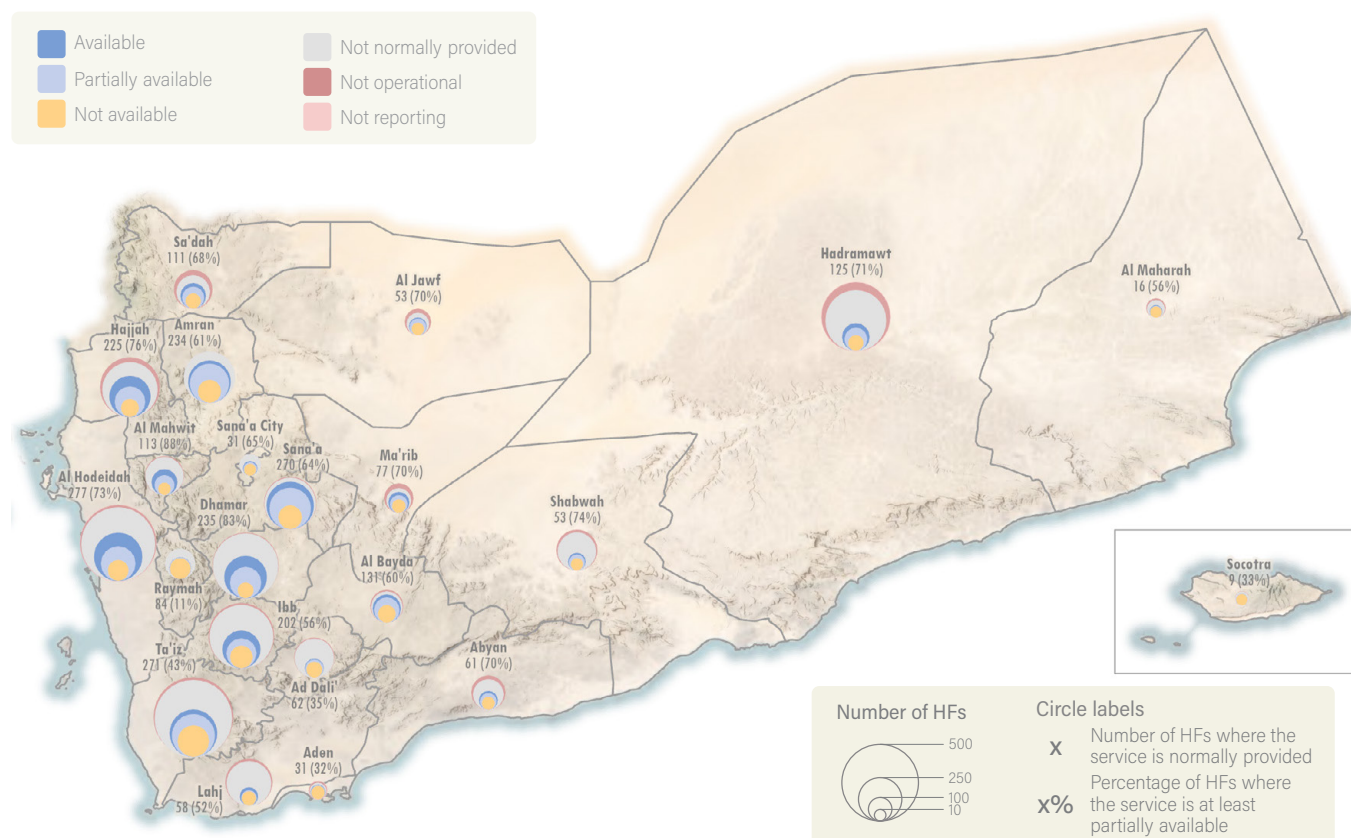
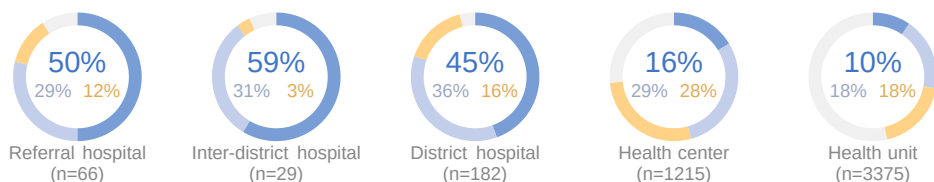


Main barriers impeding service delivery

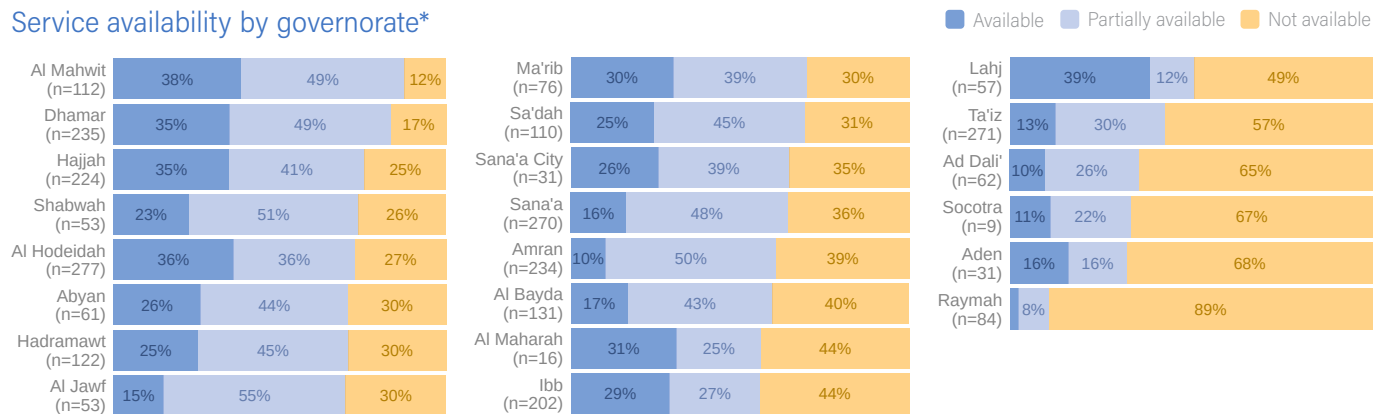
n = 2069



Service availability by type of HF



Service availability by governorate*



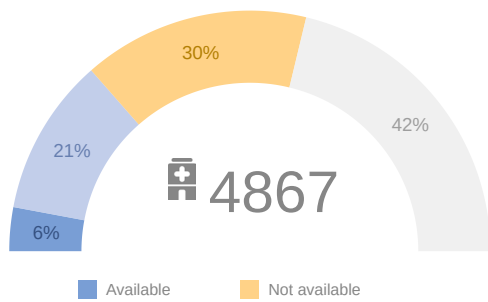
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

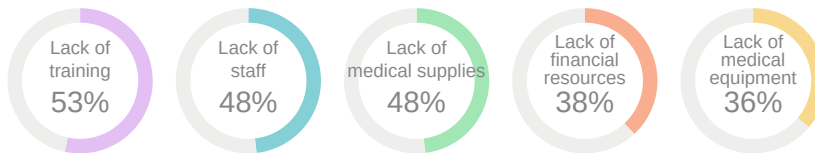
WHO BASIC EMERGENCY CARE BY PREHOSPITAL PROVIDER

Overall service availability

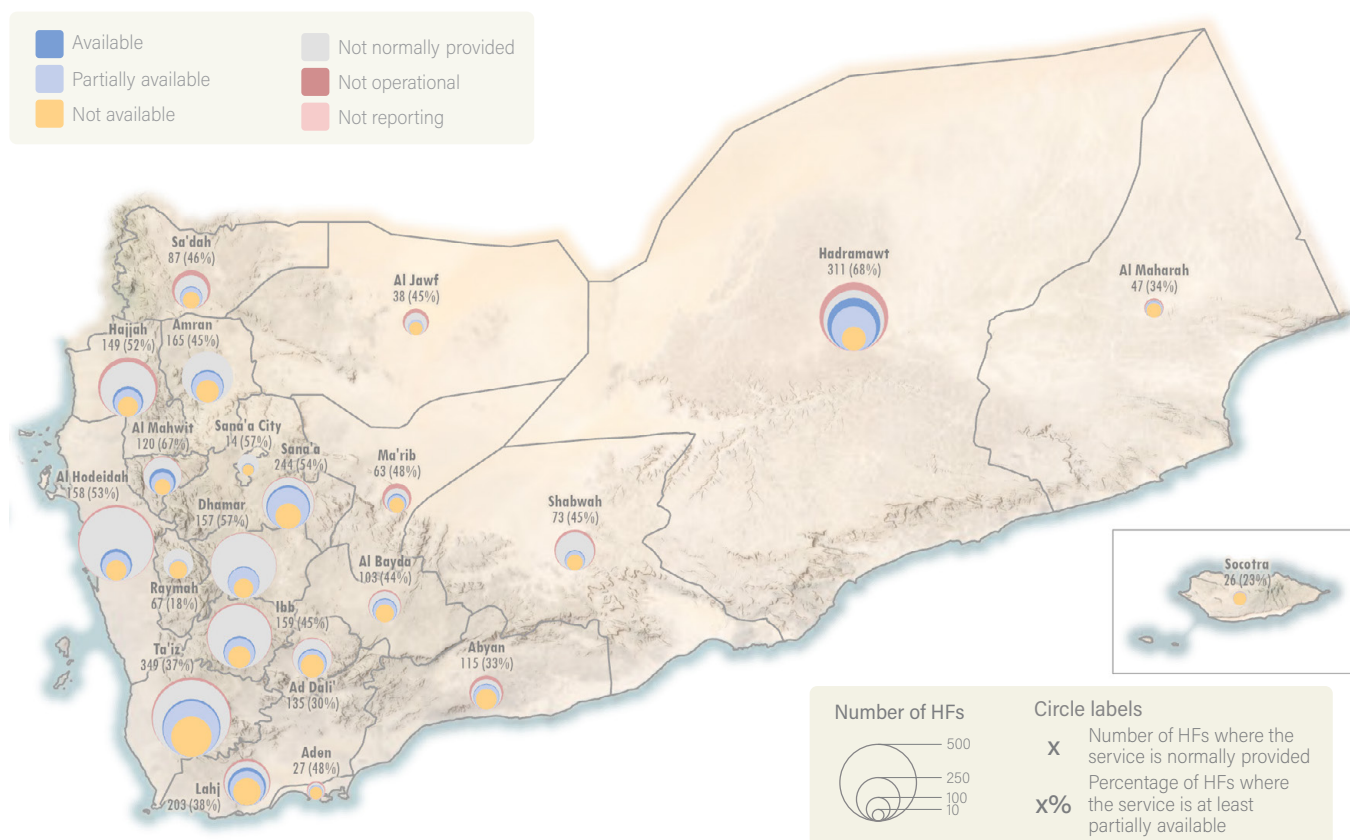
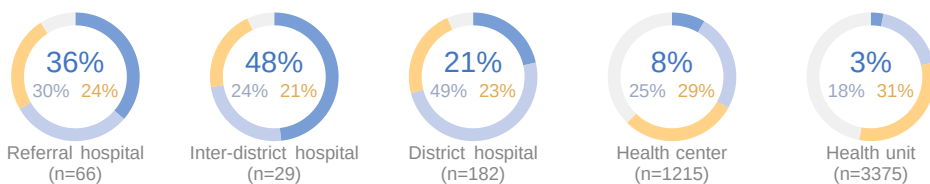


Main barriers impeding service delivery

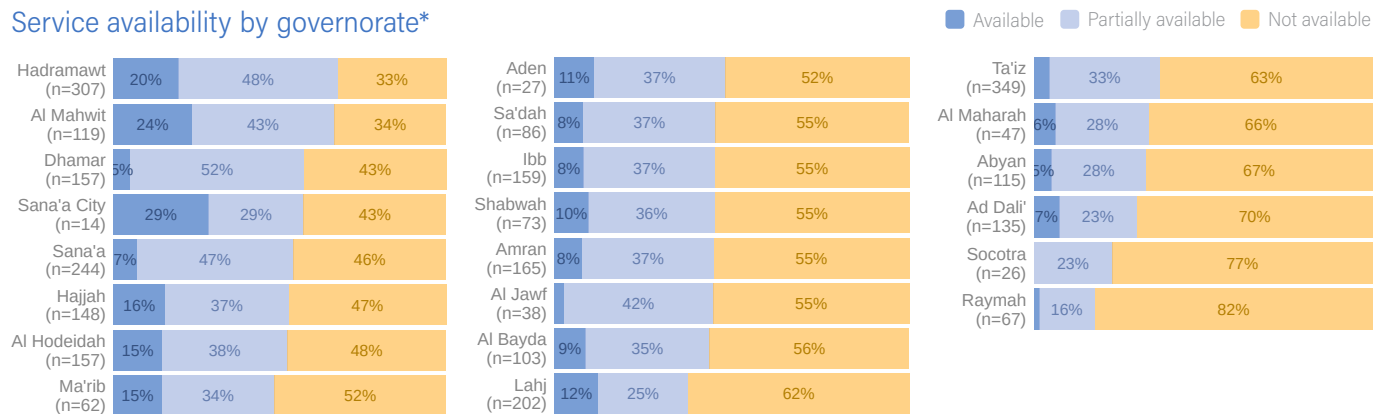
n = 2513



Service availability by type of HF



Service availability by governorate*



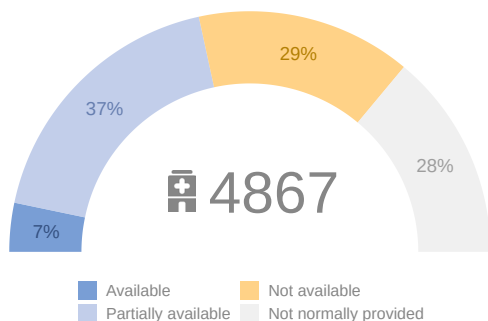
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

WHO BASIC EMERGENCY CARE

Overall service availability

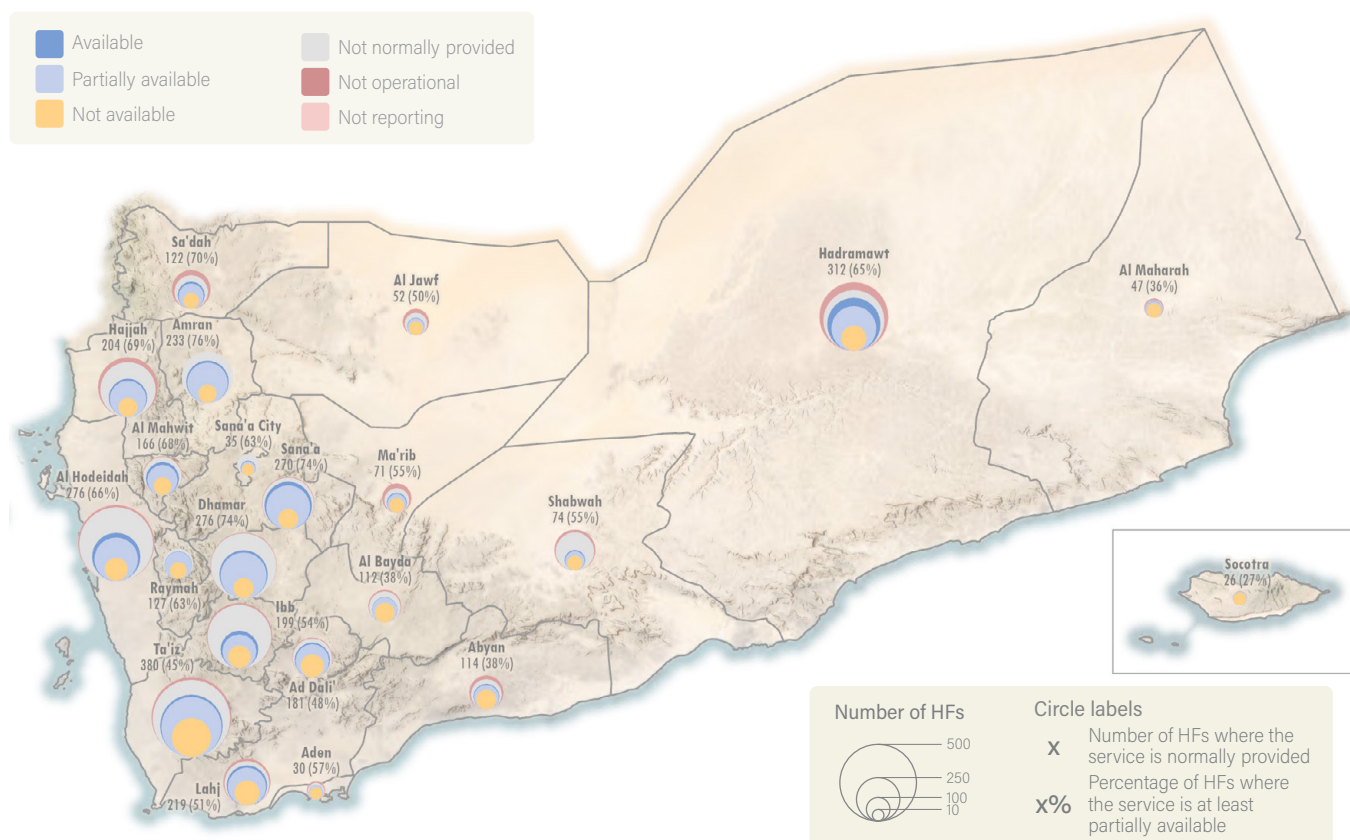
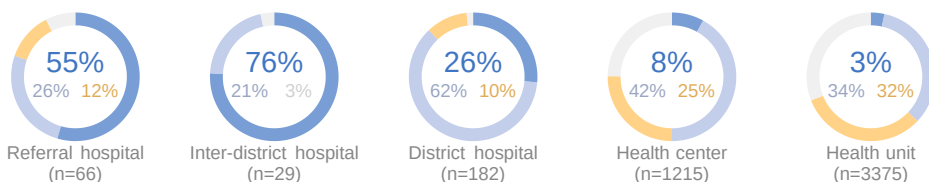


Main barriers impeding service delivery

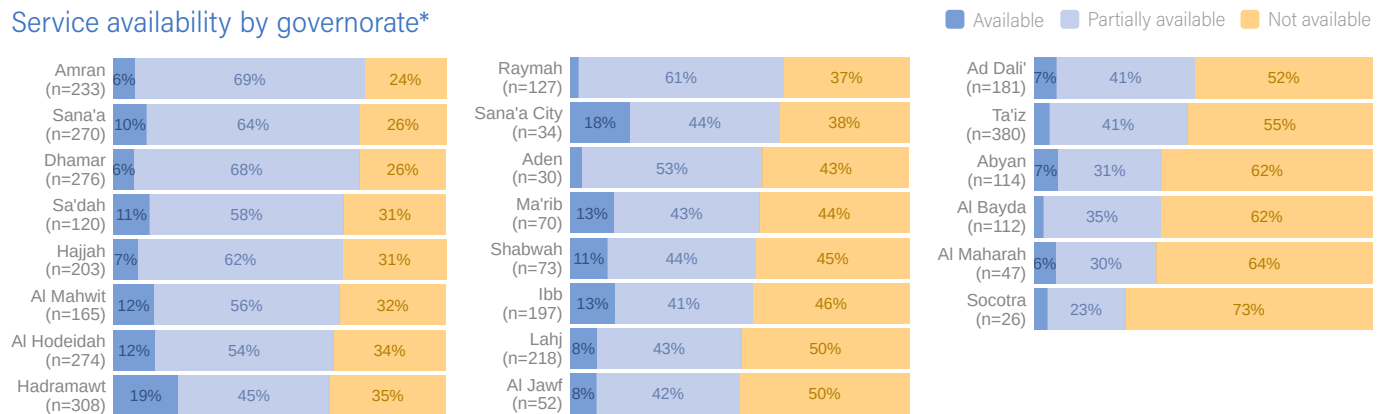
n = 3191



Service availability by type of HF



Service availability by governorate*



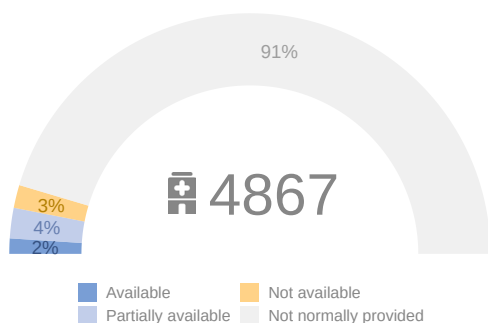
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

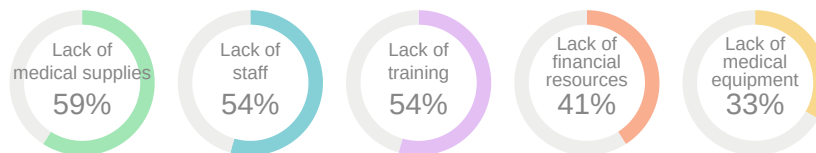
ADVANCED SYNDROME-BASED MANAGEMENT

Overall service availability

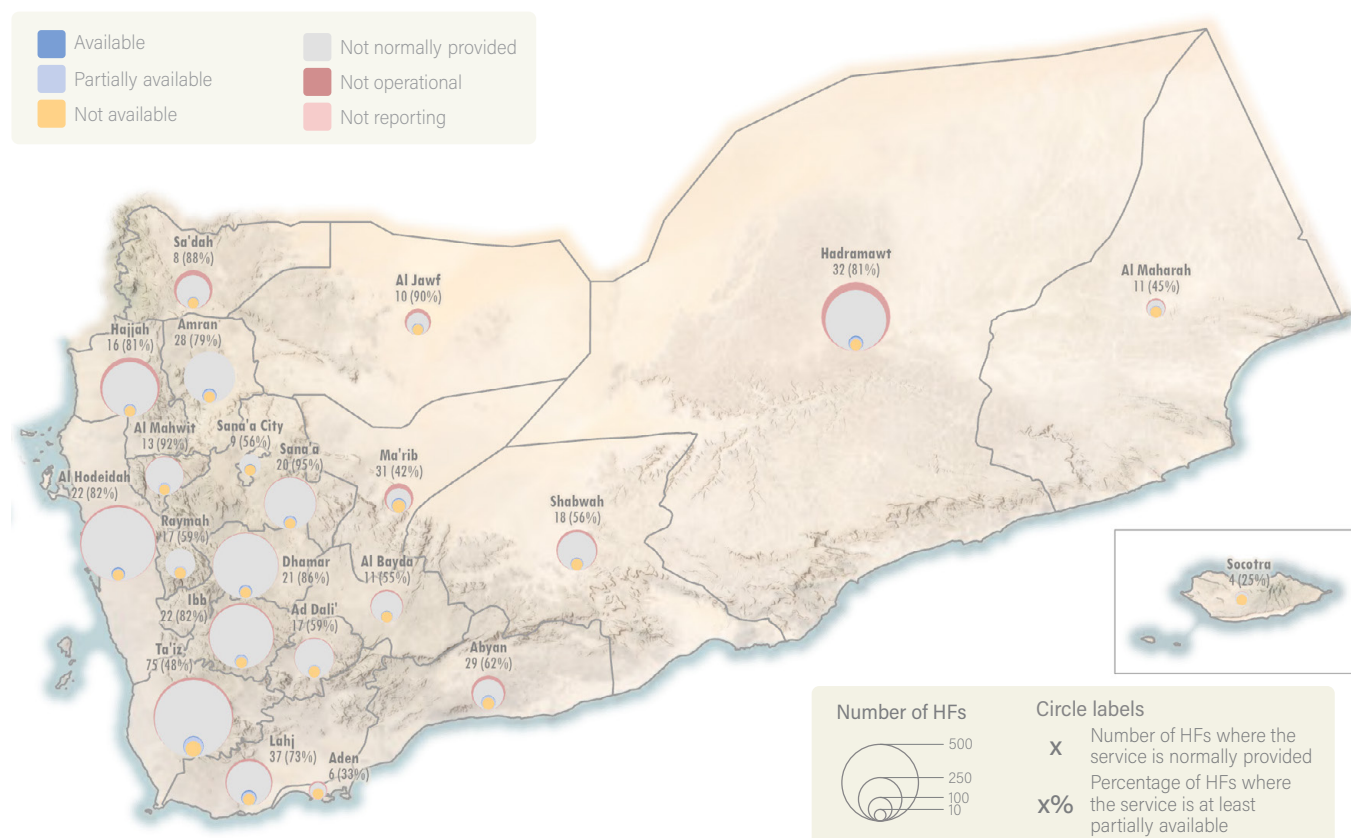
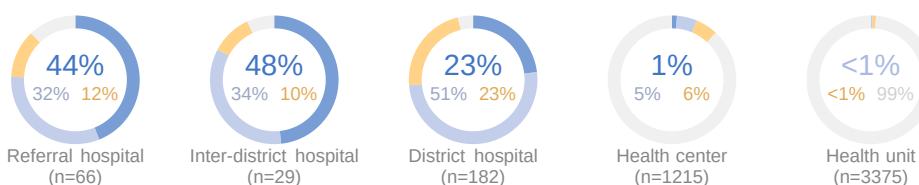


Main barriers impeding service delivery

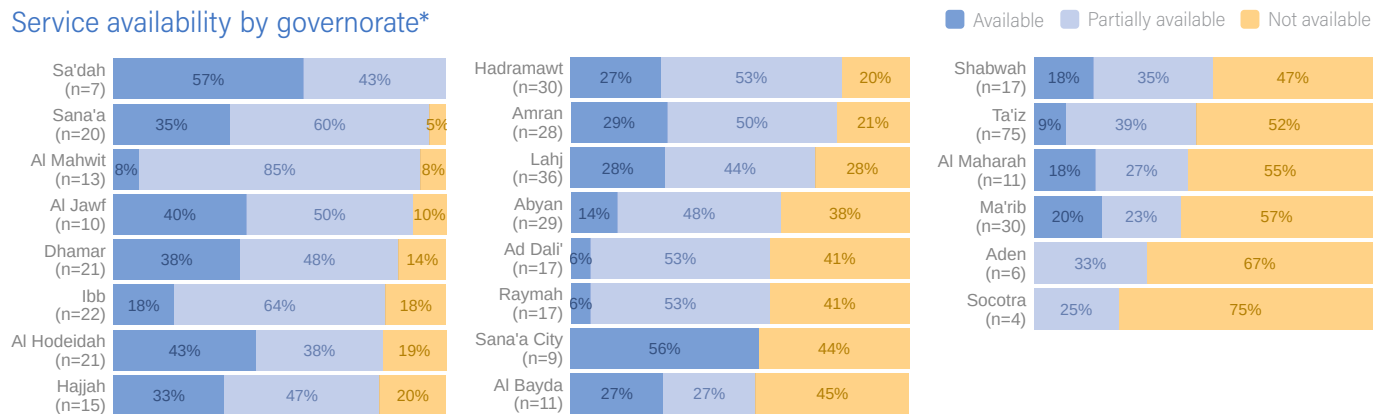
n = 349



Service availability by type of HF



Service availability by governorate*



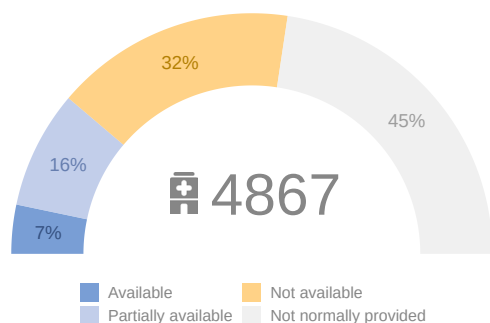
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

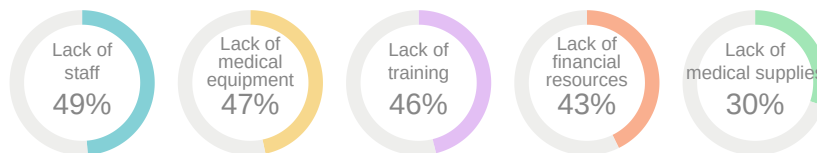
MONITORED REFERRAL

Overall service availability

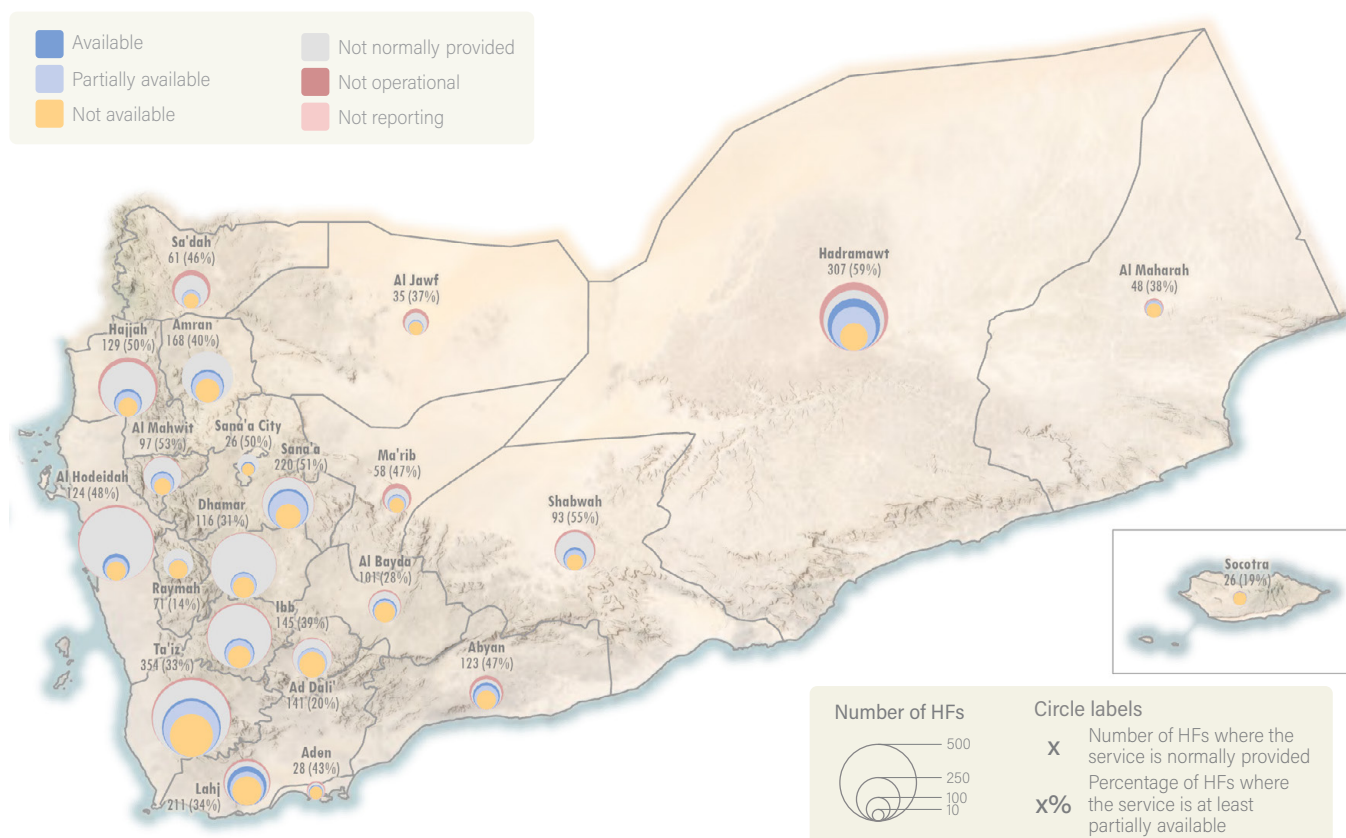
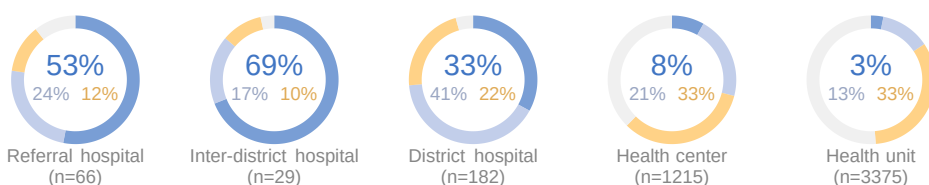


Main barriers impeding service delivery

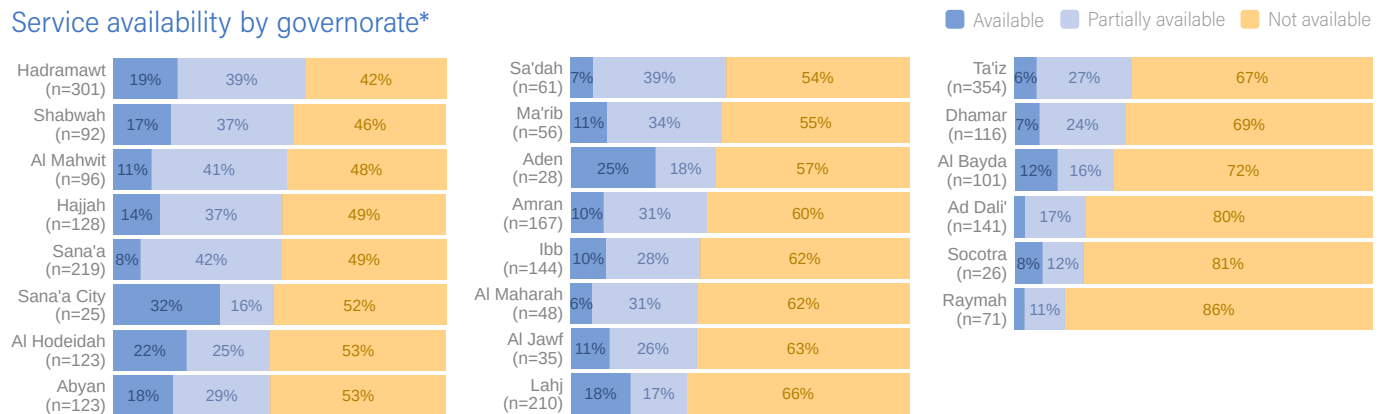
n = 2345



Service availability by type of HF



Service availability by governorate*



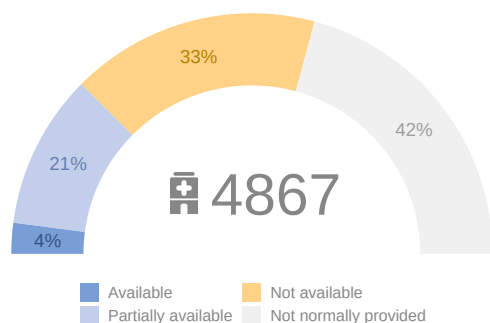
Main barriers impeding service delivery by governorate



* HFs with missing value or that reported "Not normally provided" are excluded.

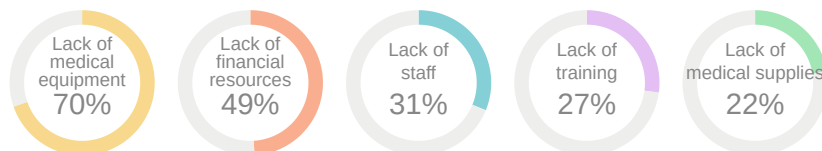
REFERRAL CAPACITY

Overall service availability

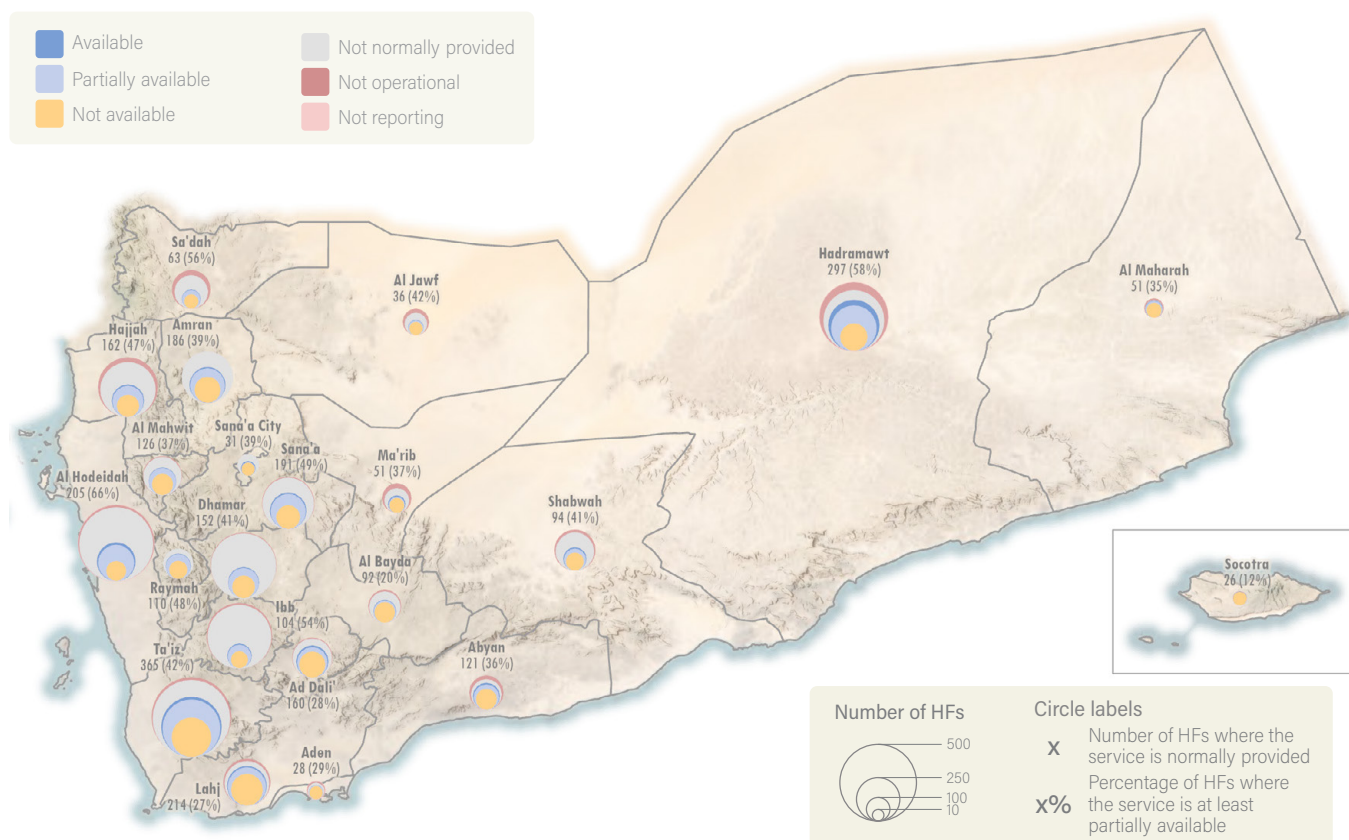
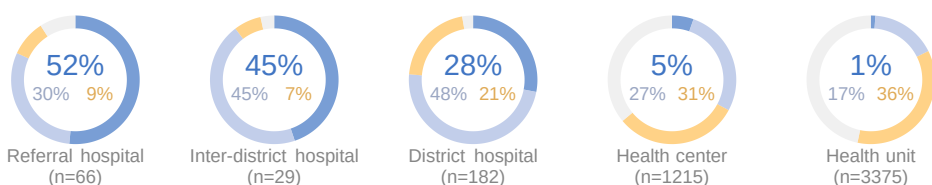


Main barriers impeding service delivery

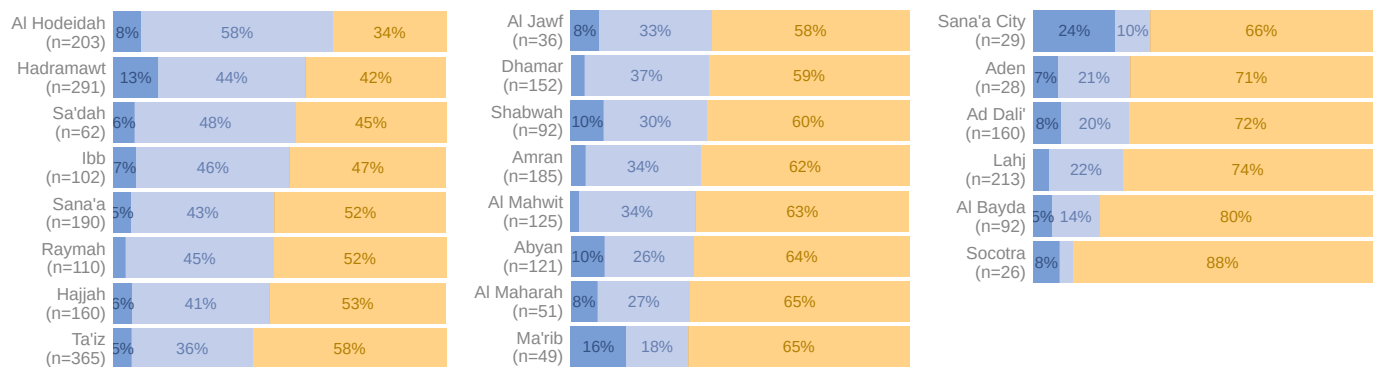
n = 2640



Service availability by type of HF



Service availability by governorate*



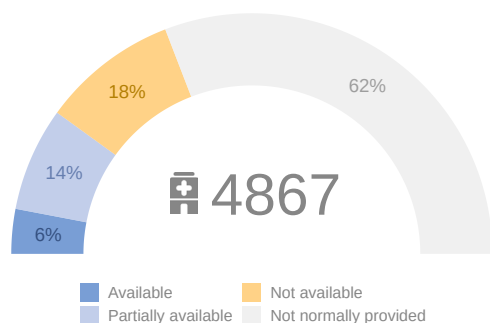
Main barriers impeding service delivery by governorate



* HFs with missing value or that reported "Not normally provided" are excluded.

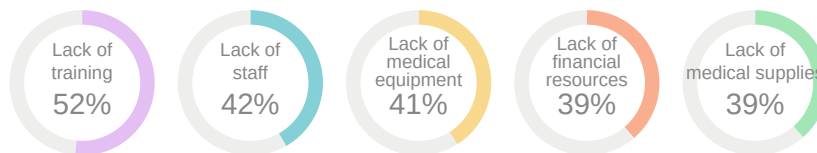
ACCEPTANCE OF REFERRALS

Overall service availability

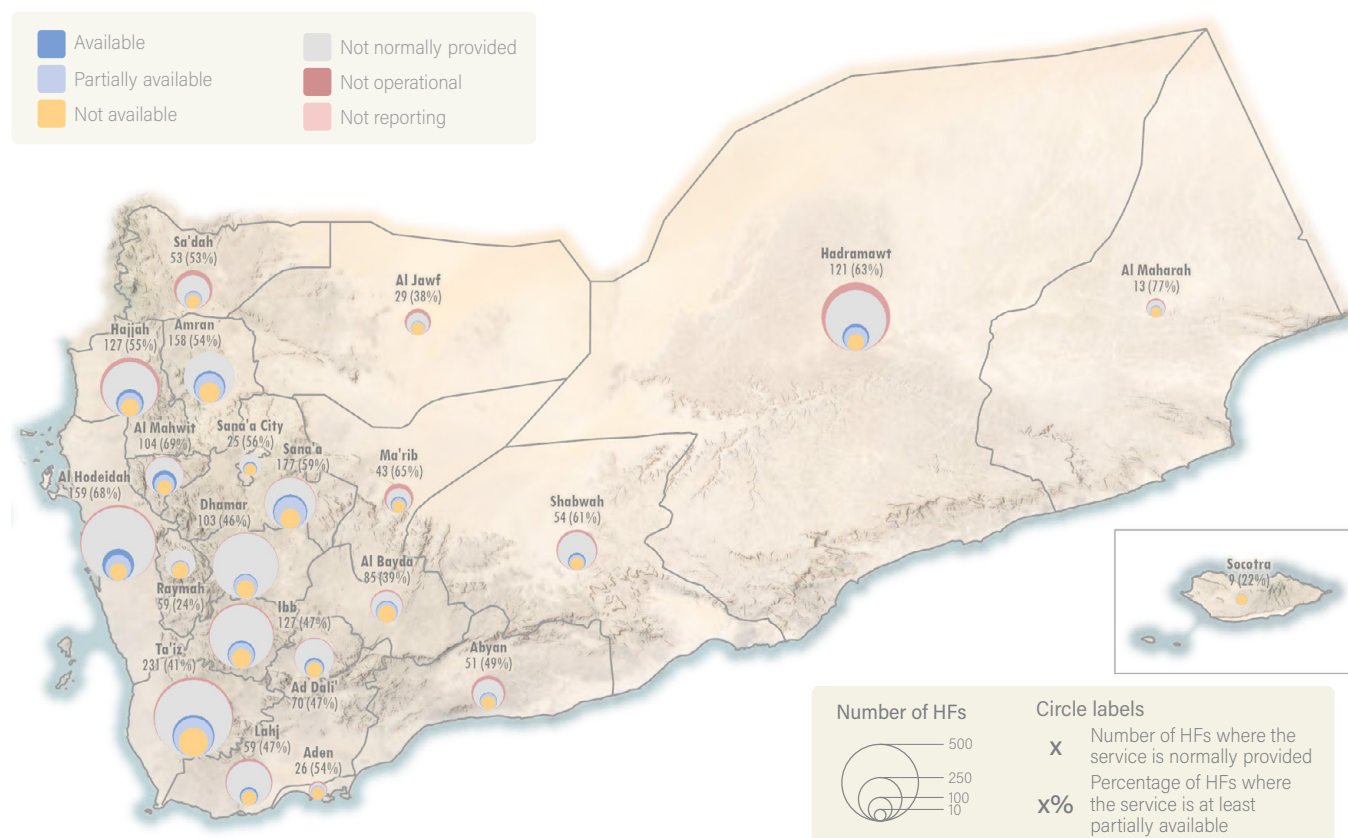
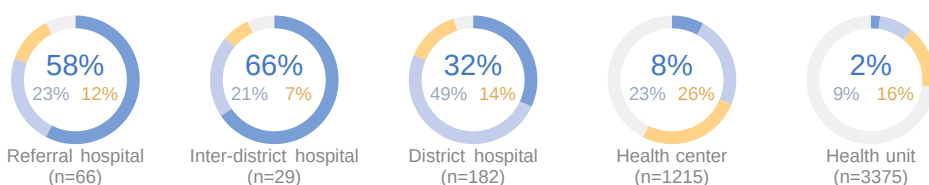


Main barriers impeding service delivery

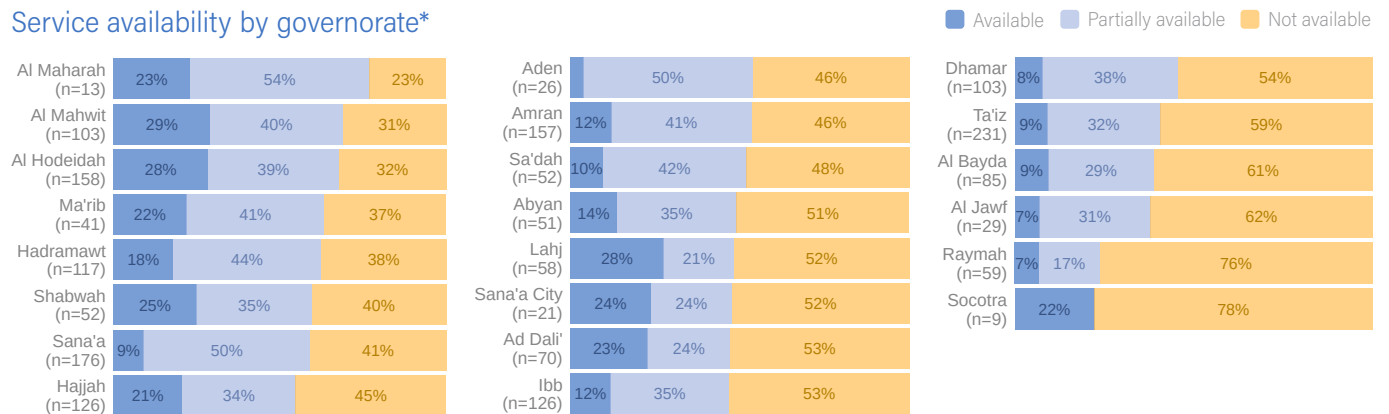
n = 1571



Service availability by type of HF



Service availability by governorate*



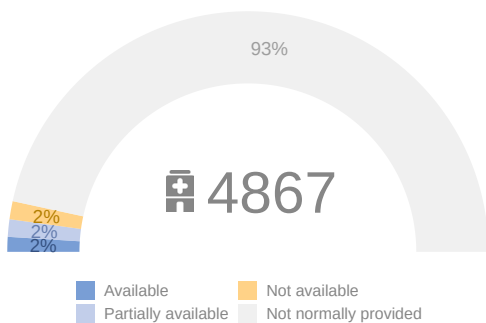
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

ACCEPTANCE OF COMPLEX REFERRALS

Overall service availability

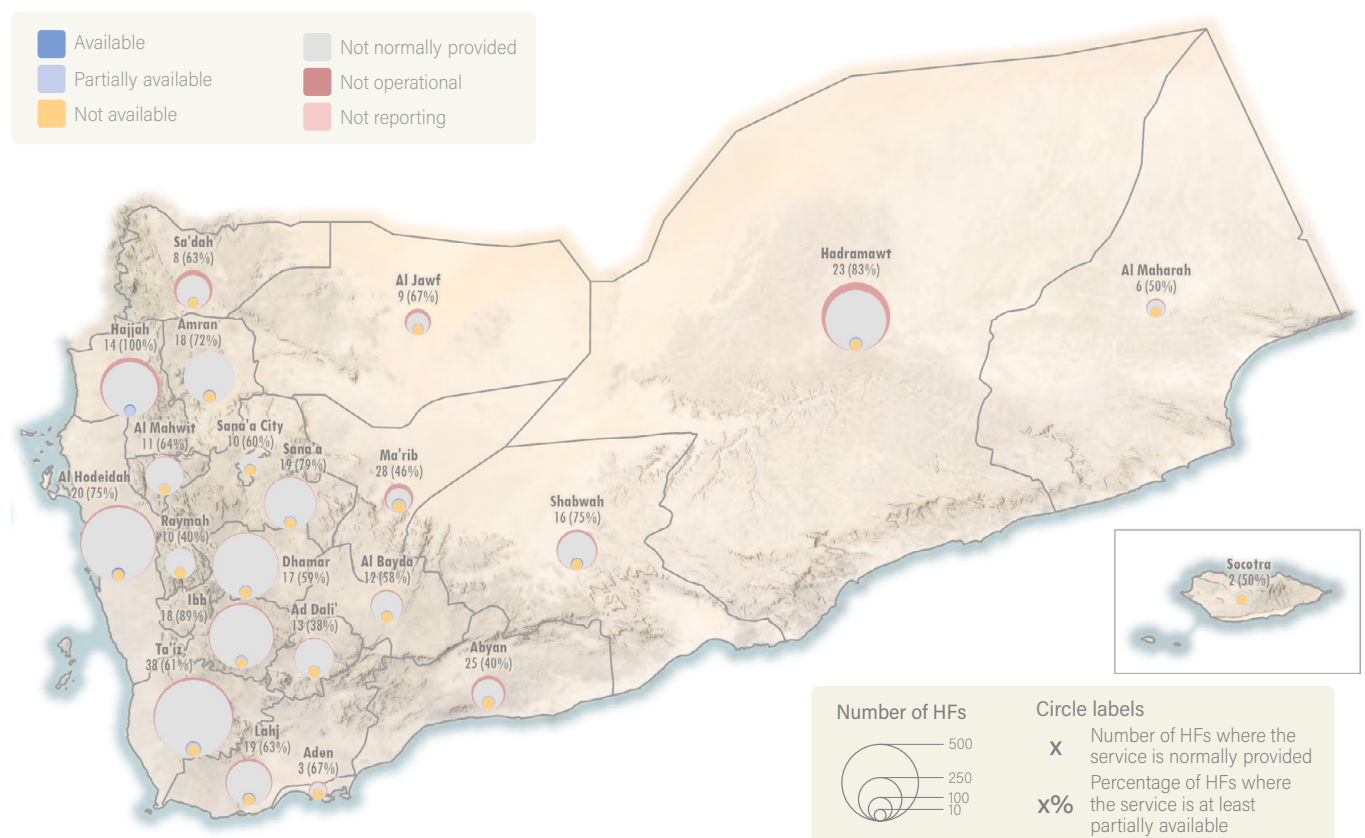
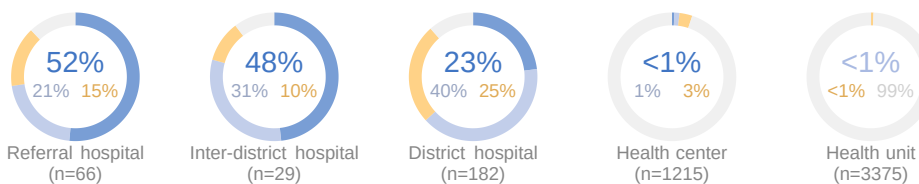


Main barriers impeding service delivery

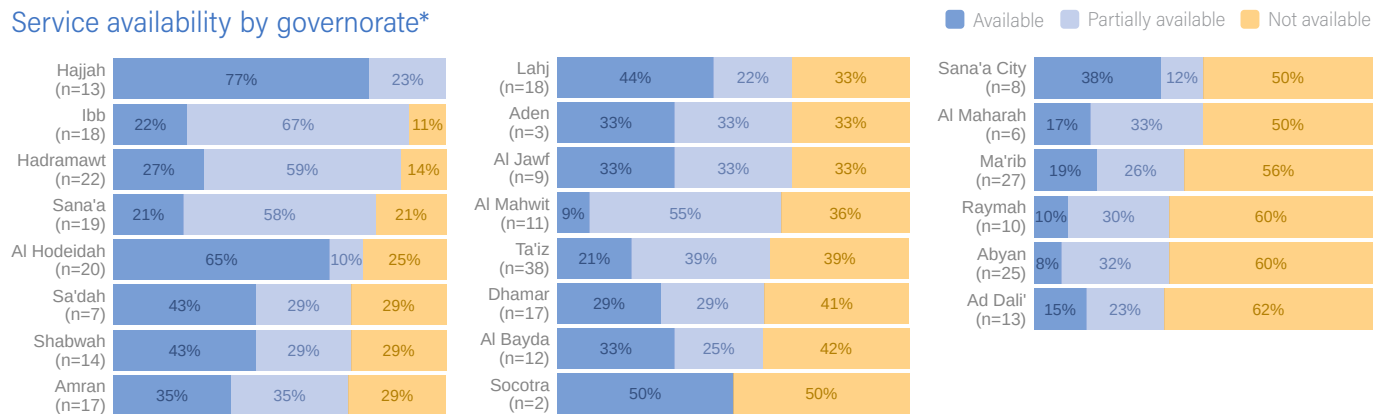
n = 232



Service availability by type of HF



Service availability by governorate*



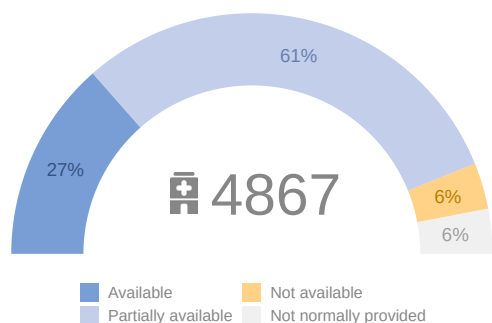
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

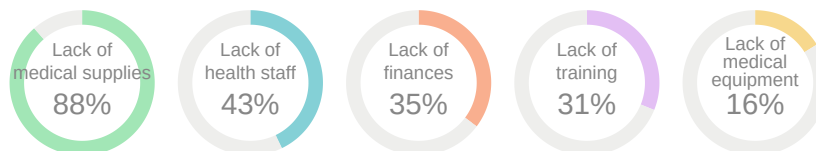
OUTPATIENT SERVICES FOR PRIMARY CARE

Overall service availability

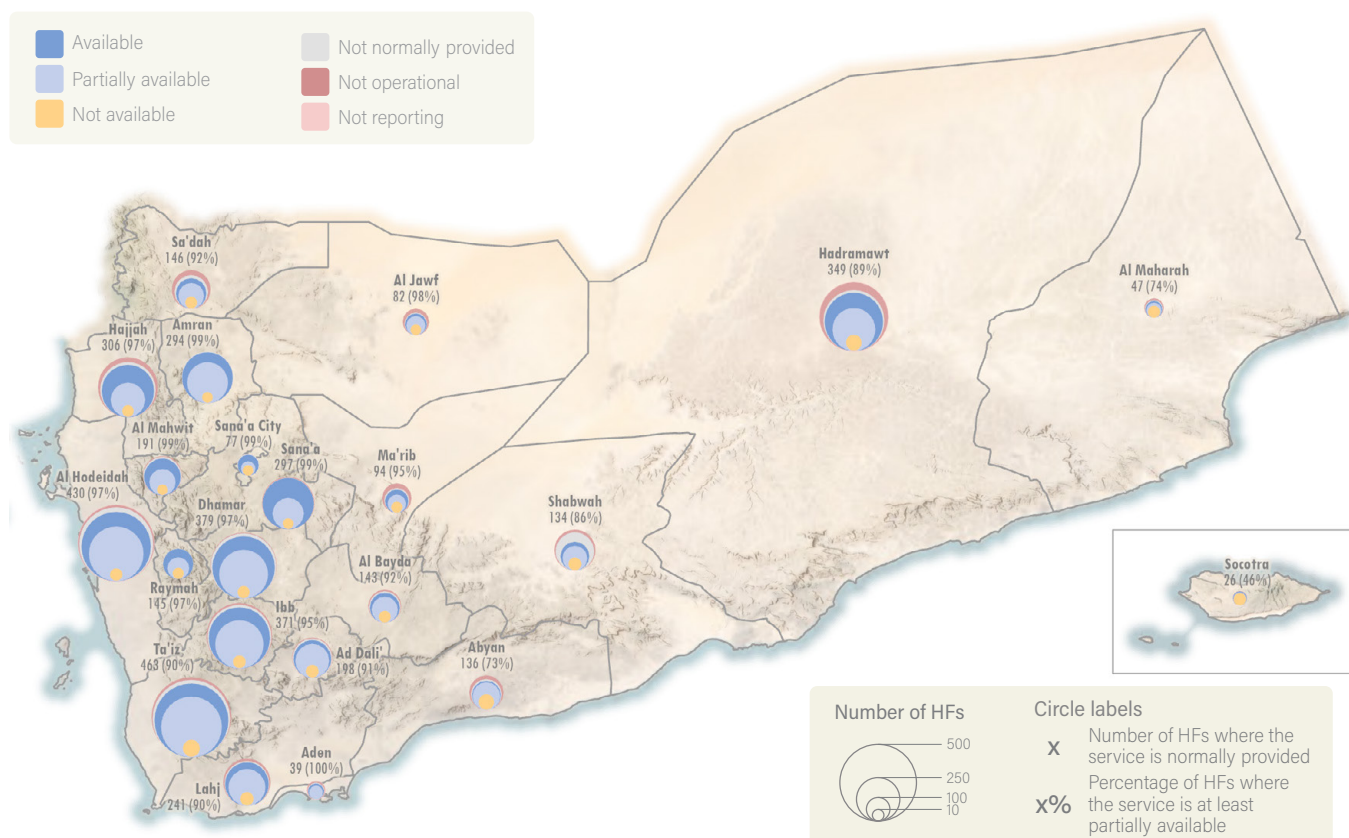
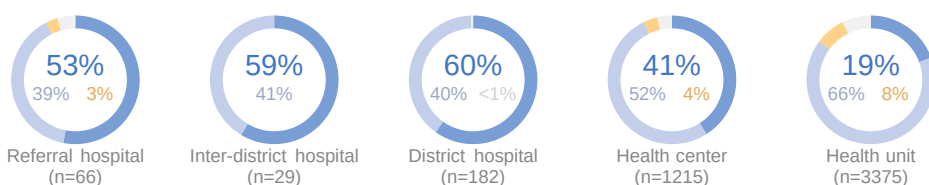


Main barriers impeding service delivery

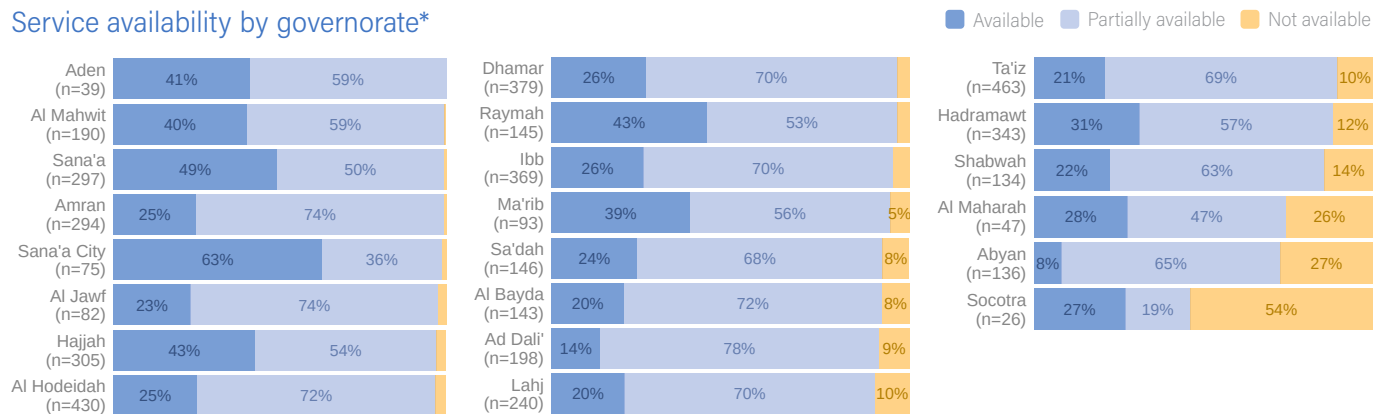
n = 3260



Service availability by type of HF



Service availability by governorate*



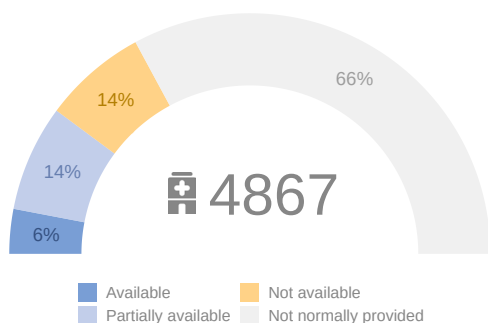
Main barriers impeding service delivery by governorate



* HFs with missing value or that reported "Not normally provided" are excluded.

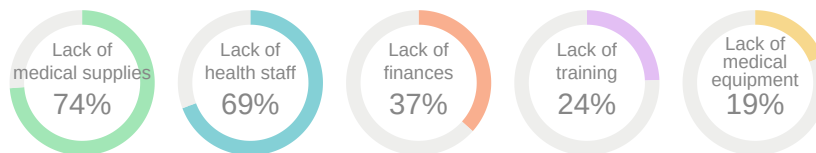
OUTPATIENT DEPARTMENT FOR SECONDARY CARE

Overall service availability

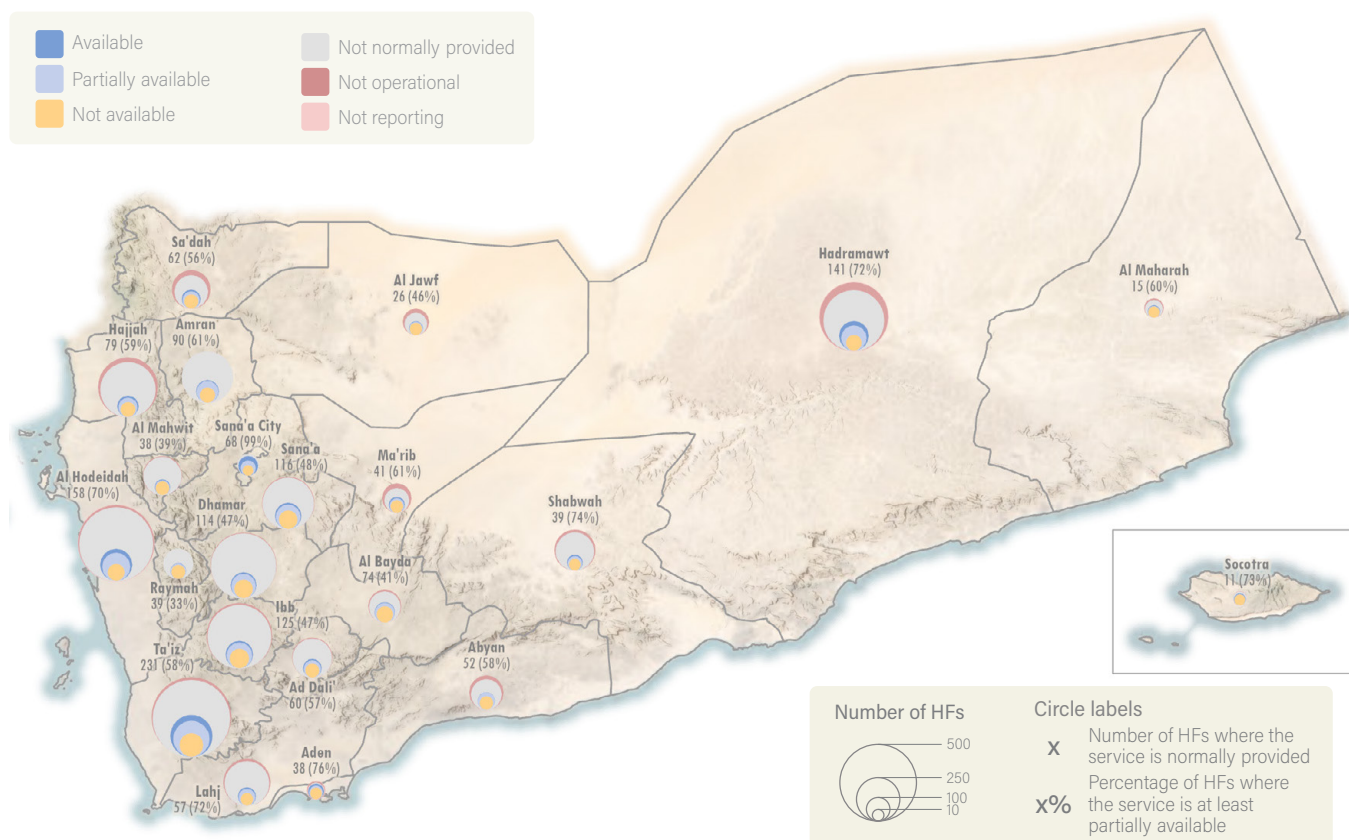
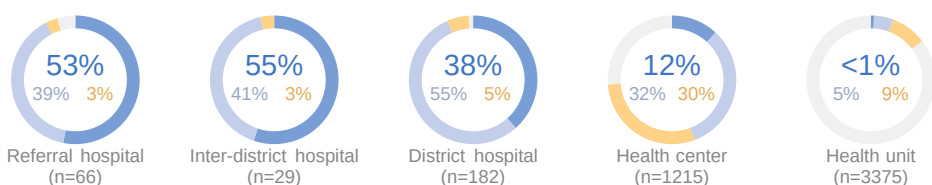


Main barriers impeding service delivery

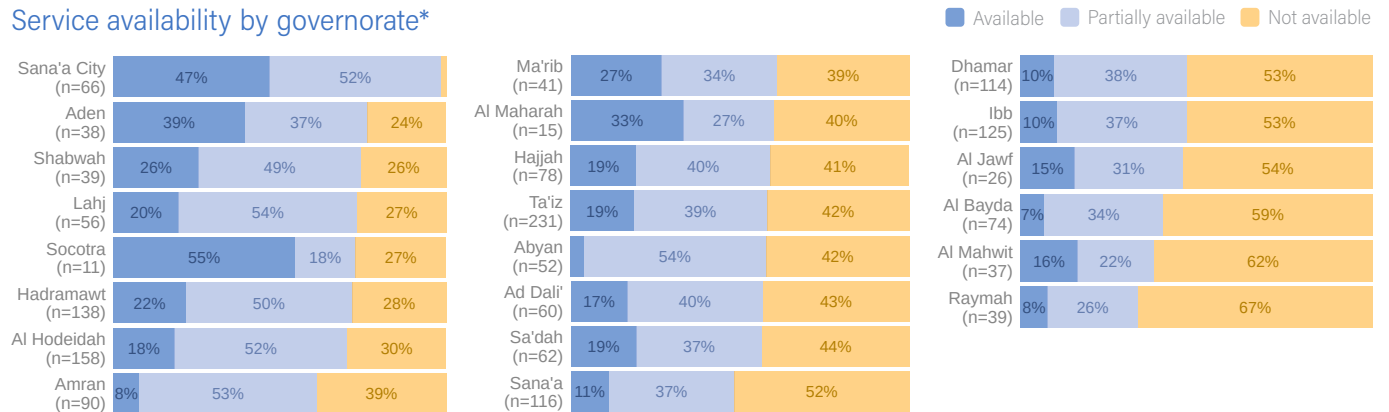
n = 1374



Service availability by type of HF



Service availability by governorate*



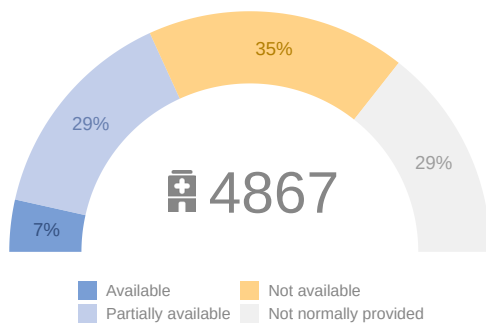
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

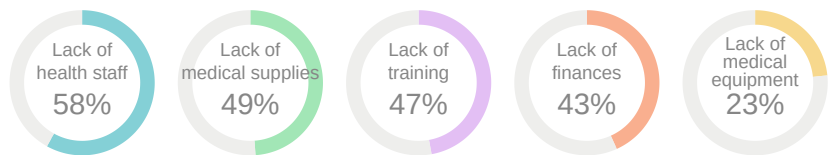
HOME VISITS

Overall service availability

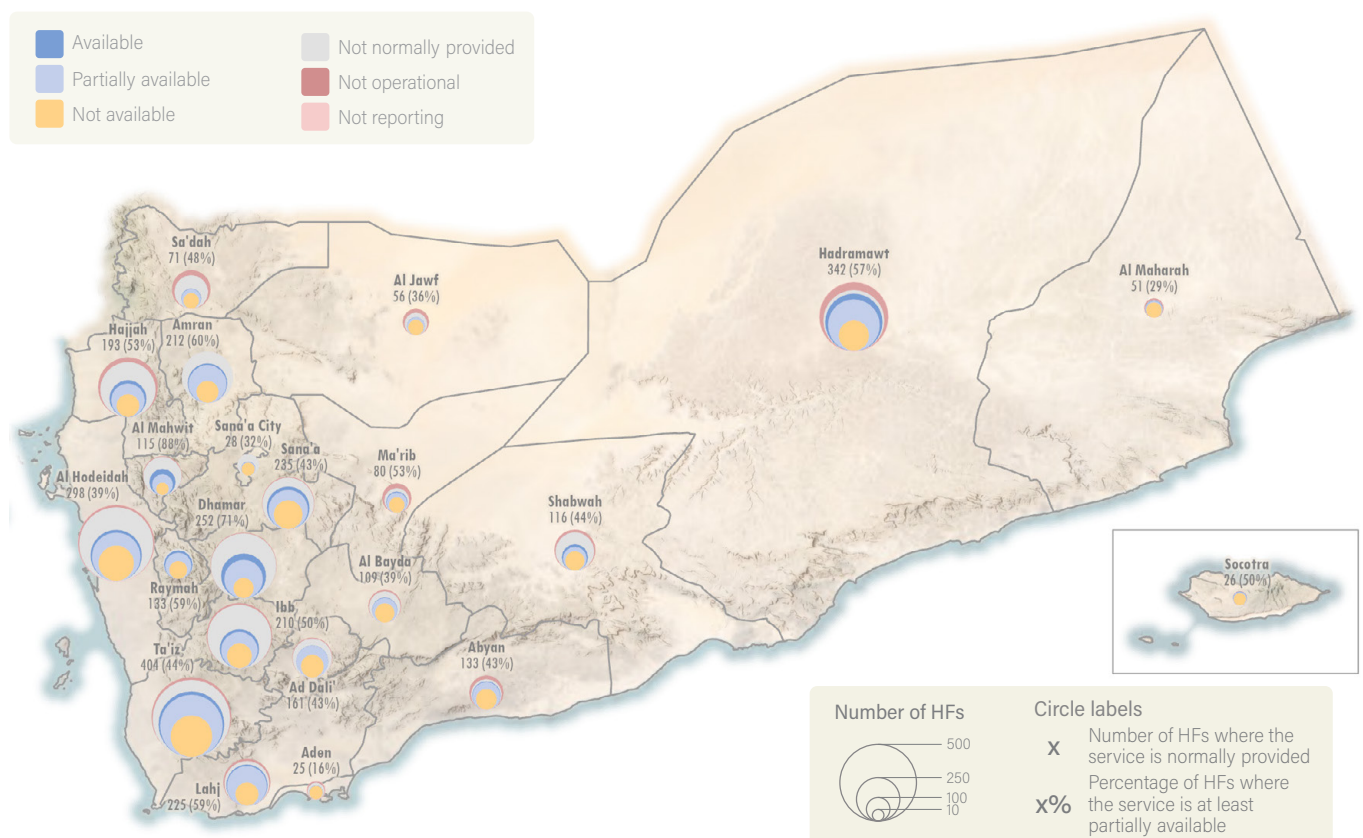
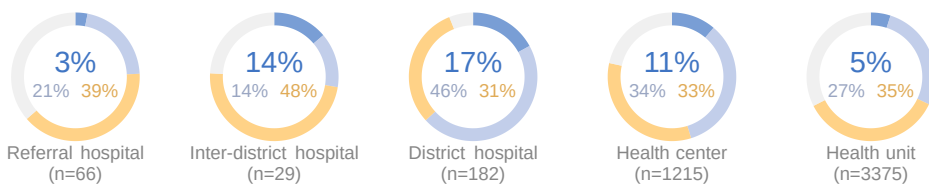


Main barriers impeding service delivery

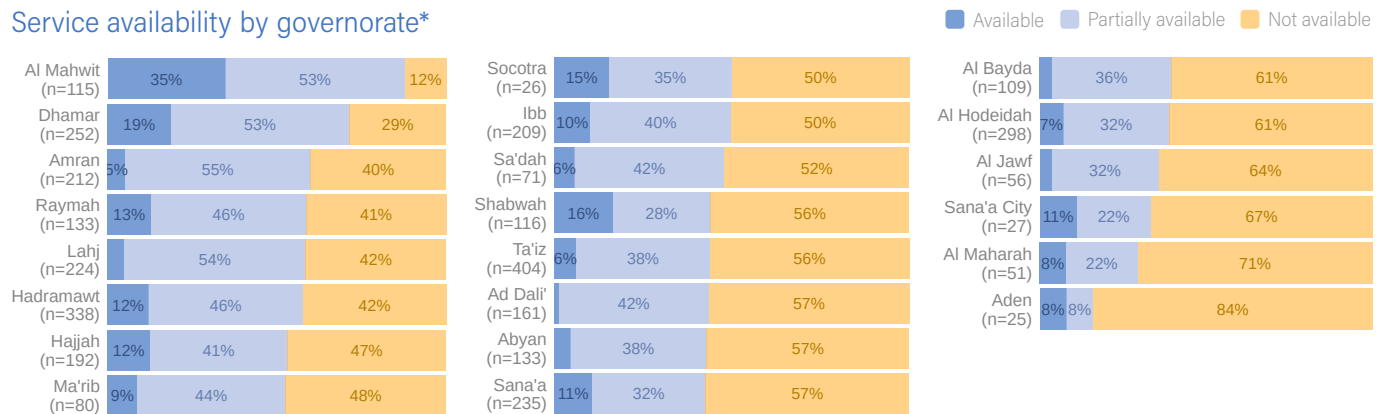
n = 3127



Service availability by type of HF



Service availability by governorate*



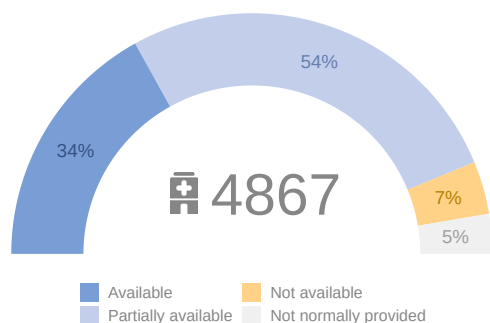
Main barriers impeding service delivery by governorate



* HFs with missing value or that reported "Not normally provided" are excluded.

MINOR TRAUMA DEFINITIVE MANAGEMENT

Overall service availability

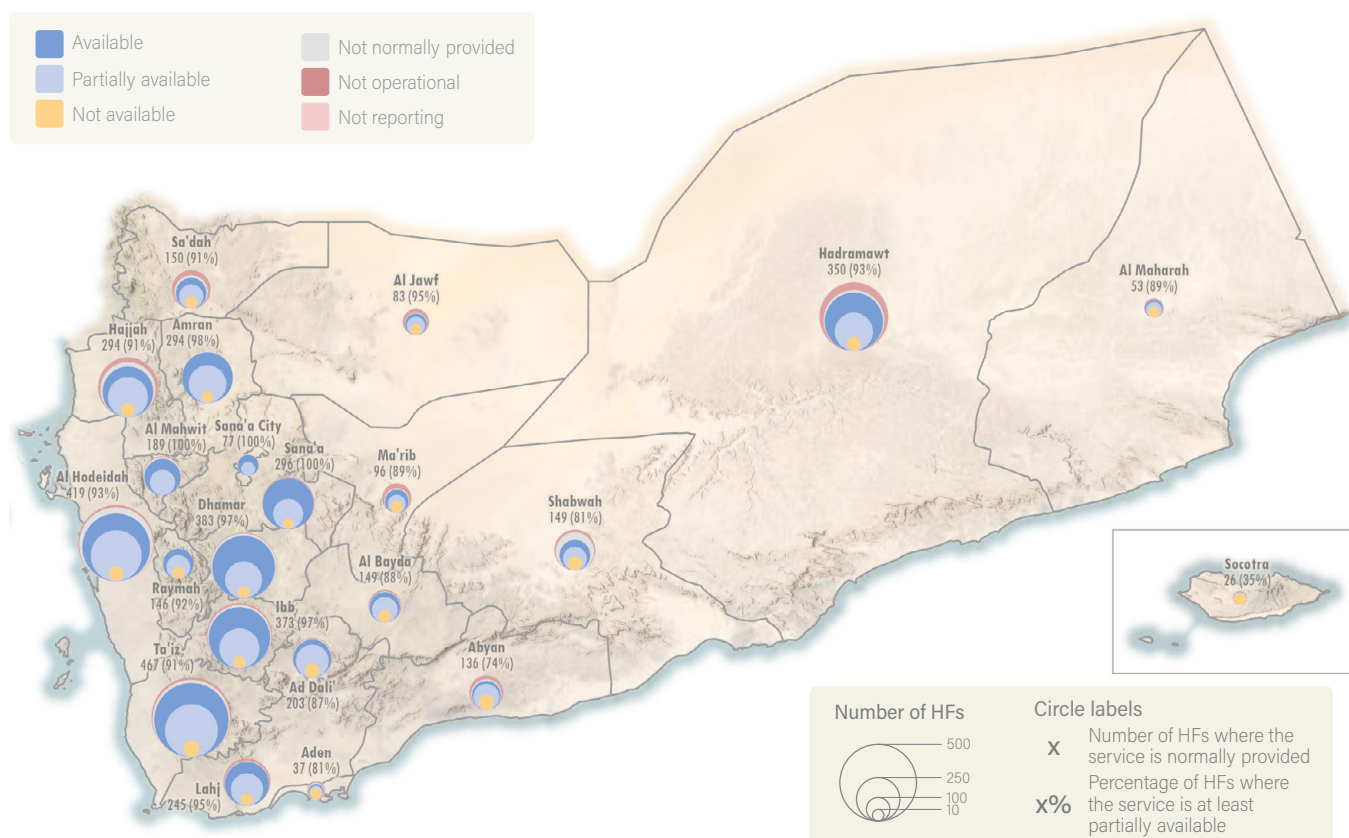
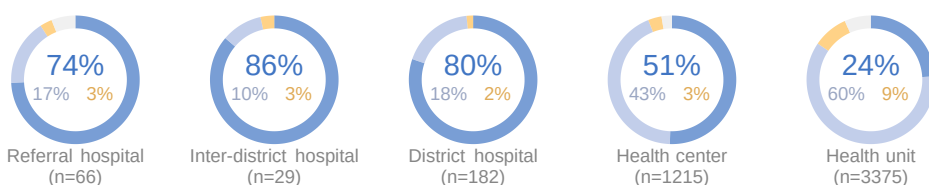


Main barriers impeding service delivery

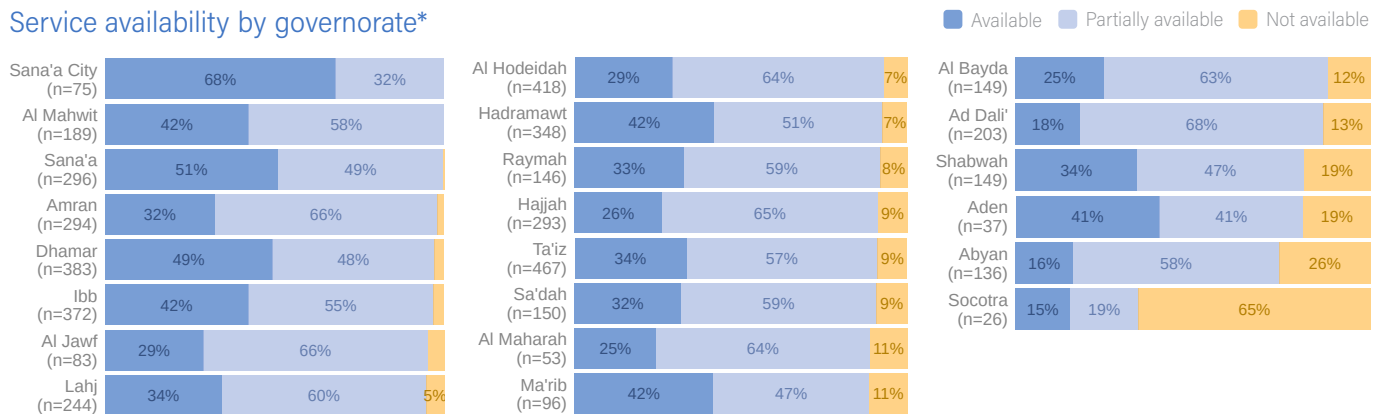
n = 2958



Service availability by type of HF



Service availability by governorate*



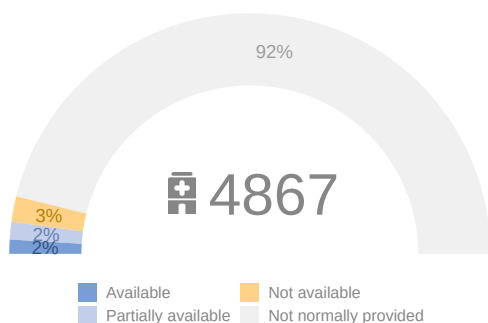
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

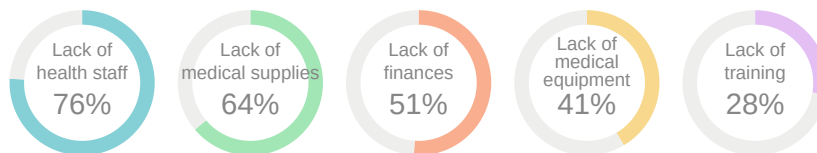
EMERGENCY AND ELECTIVE SURGERY

Overall service availability

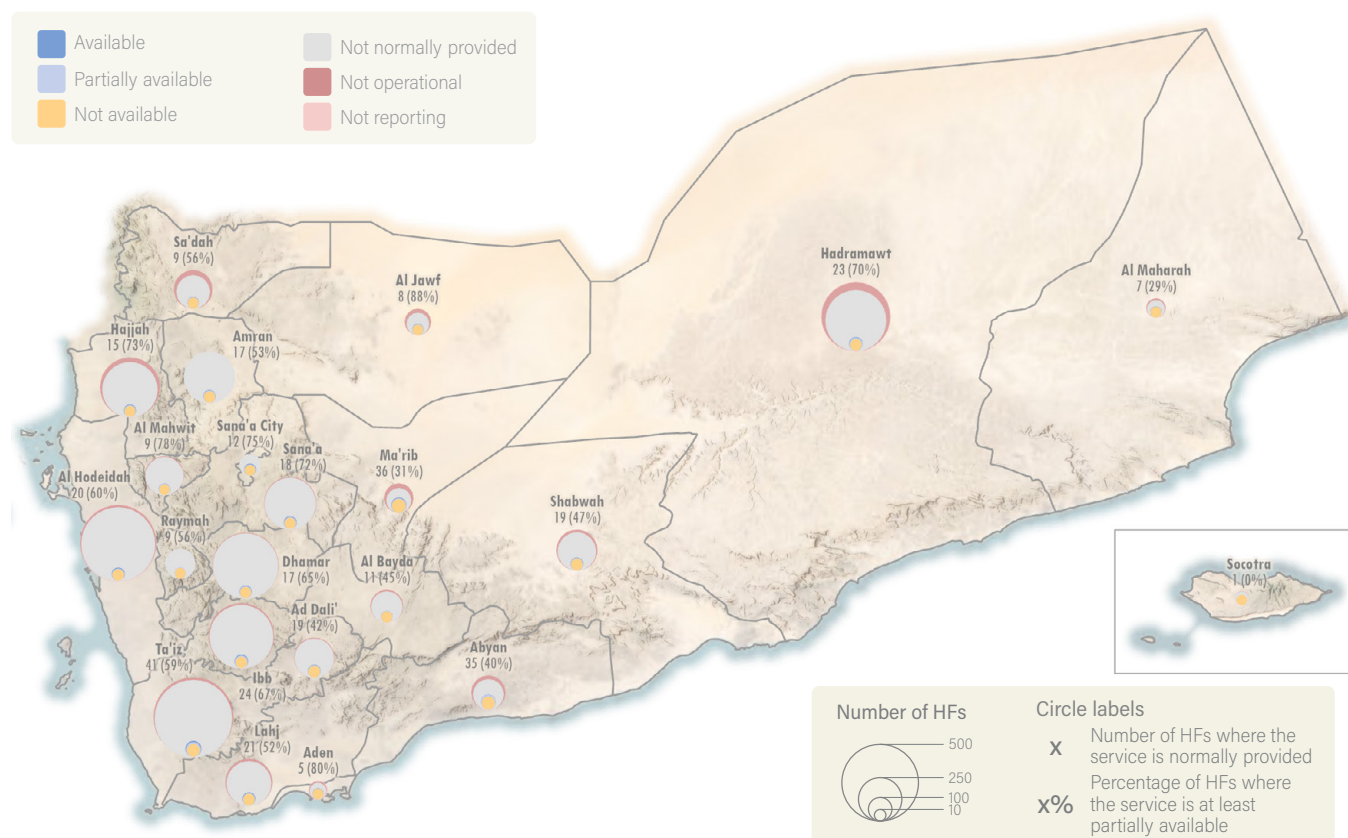
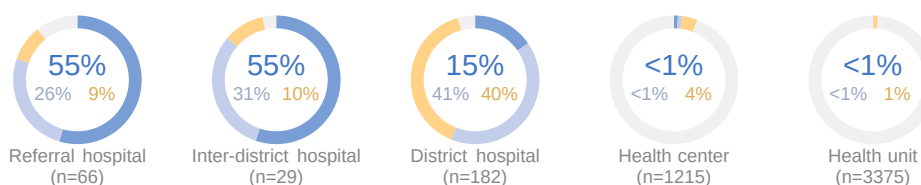


Main barriers impeding service delivery

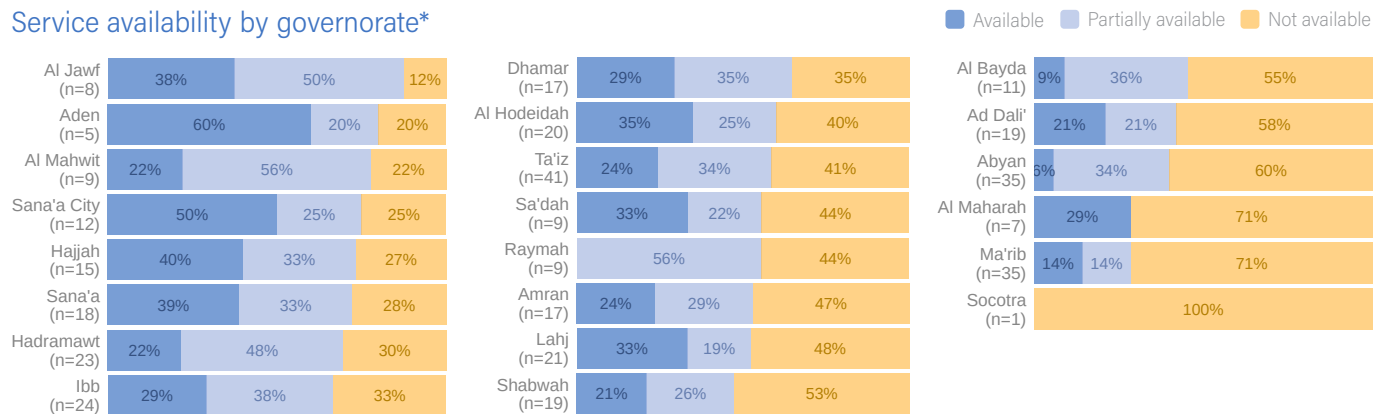
n = 282



Service availability by type of HF



Service availability by governorate*



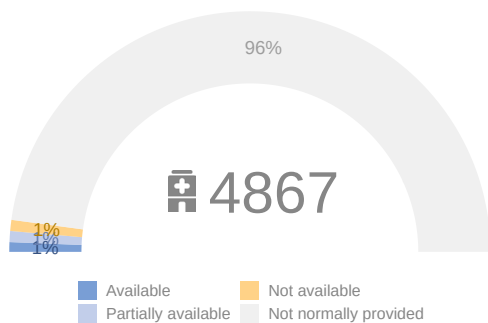
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

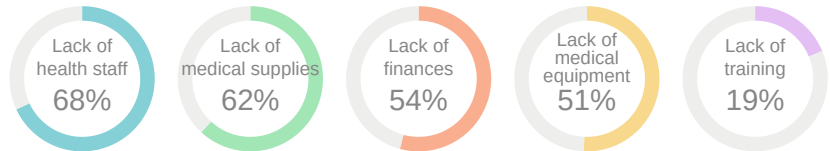
EMERGENCY AND ELECTIVE SURGERY WITH AT LEAST TWO OPERATING THEATRES

Overall service availability

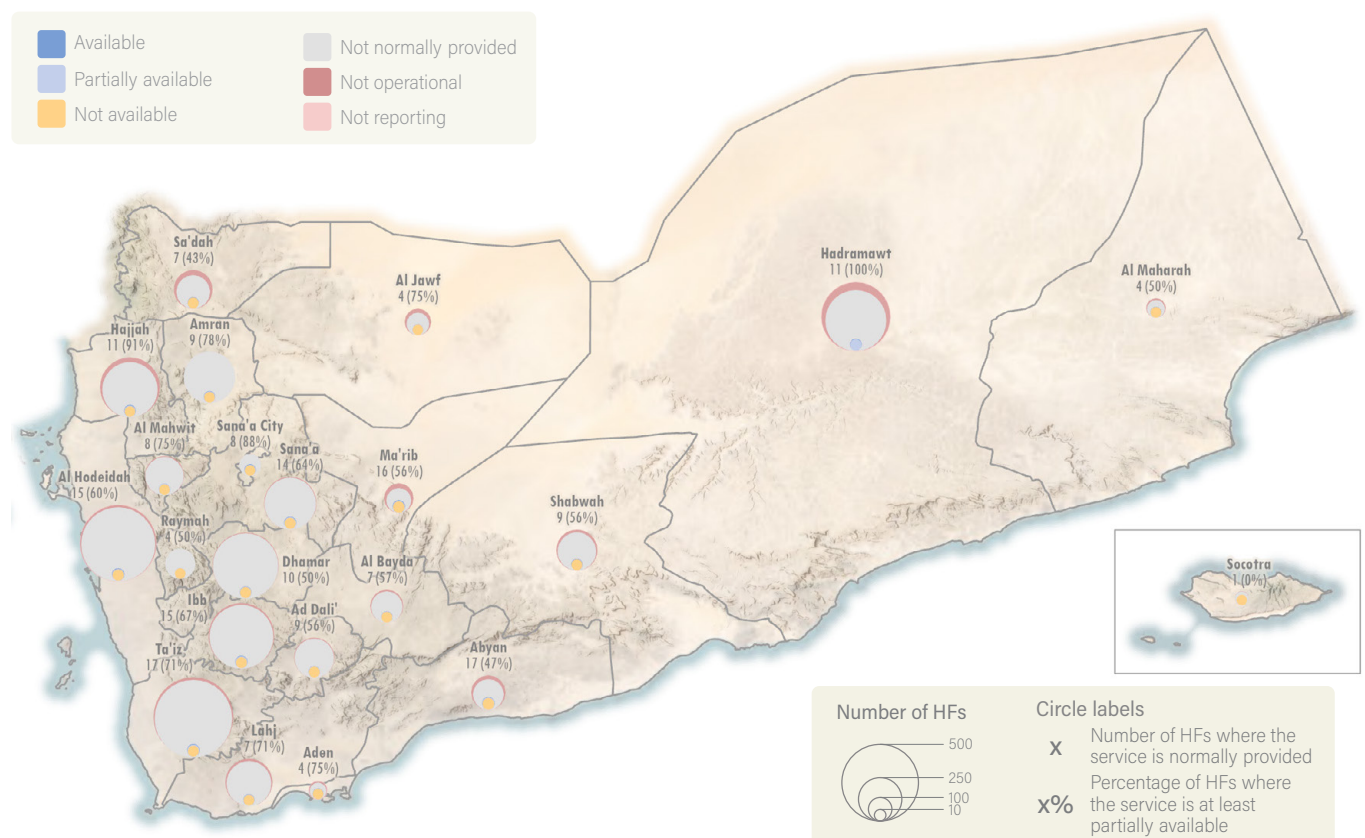
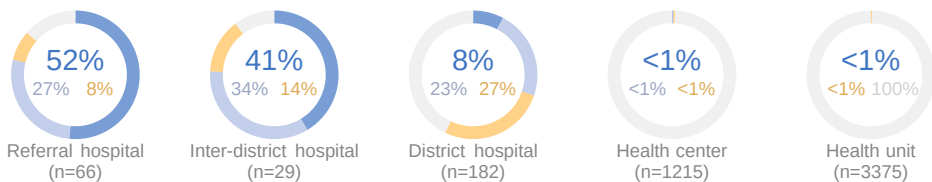


Main barriers impeding service delivery

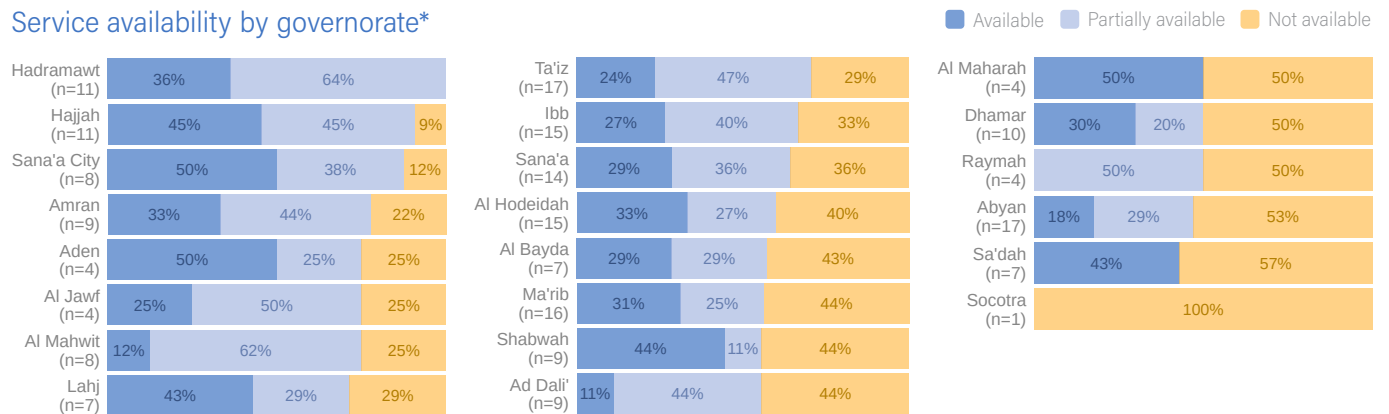
n = 144



Service availability by type of HF



Service availability by governorate*



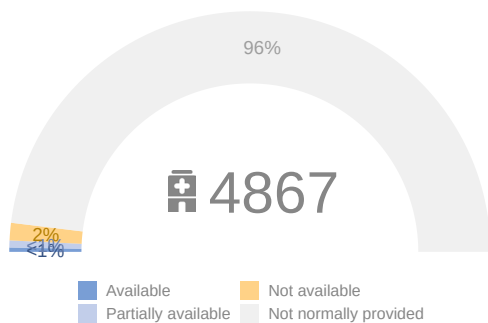
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

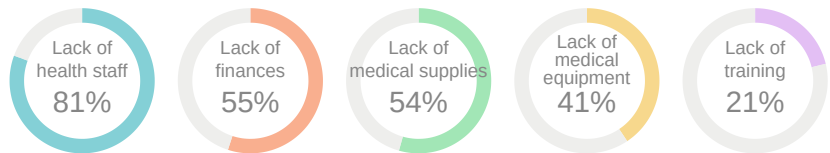
ORTHOPEDIC/TRAUMA WARD

Overall service availability

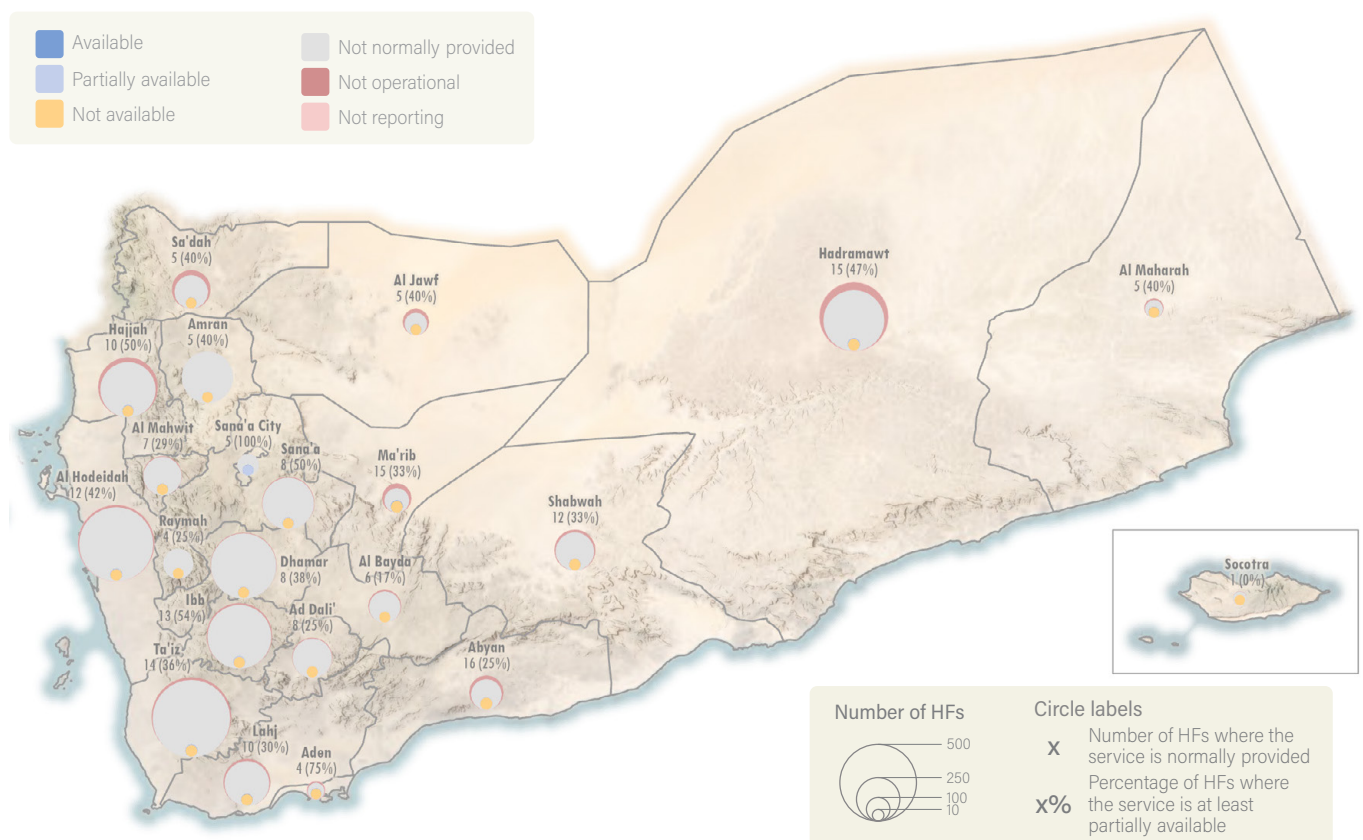
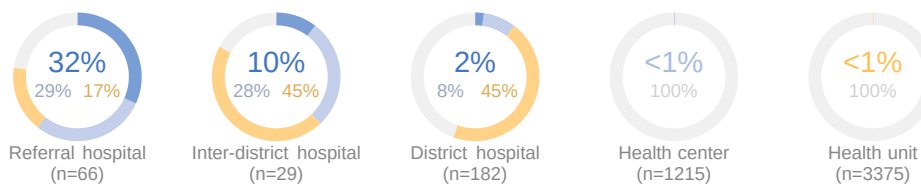


Main barriers impeding service delivery

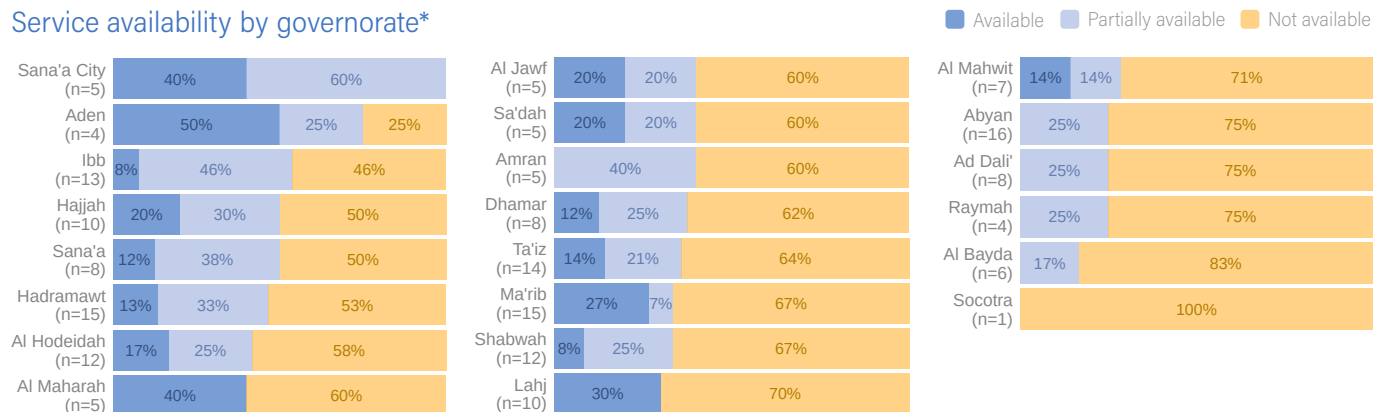
n = 160



Service availability by type of HF



Service availability by governorate*



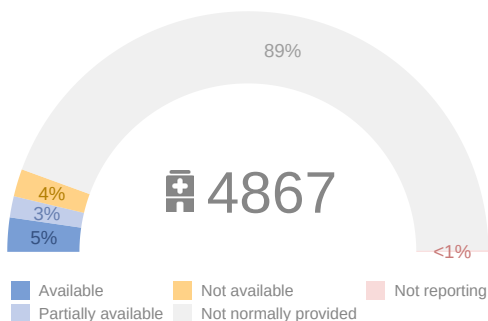
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

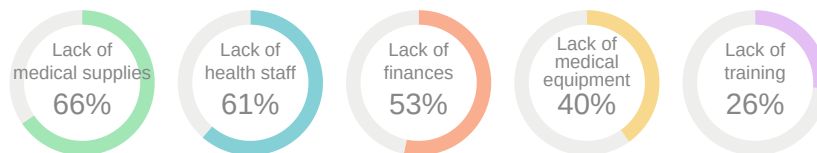
SHORT HOSPITALIZATION CAPACITY

Overall service availability

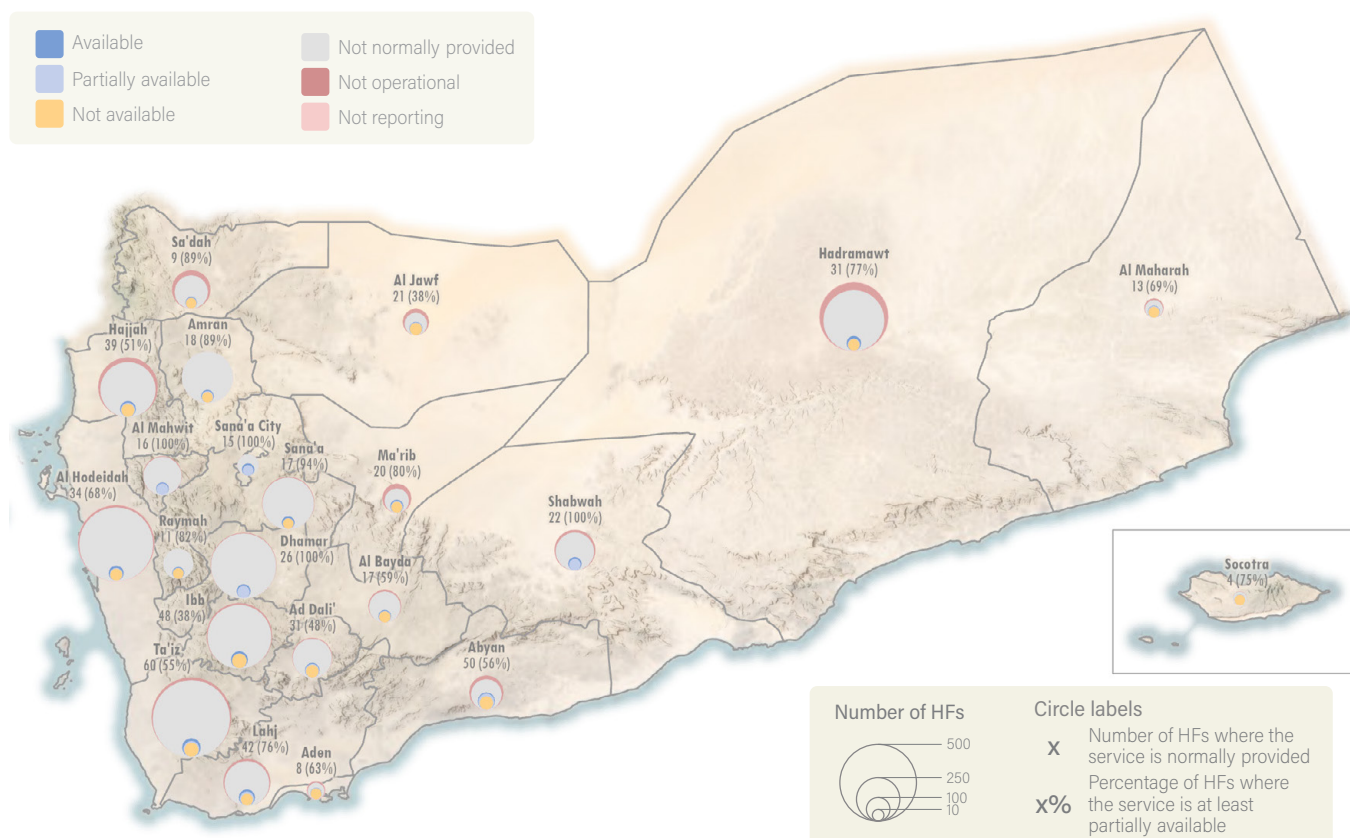
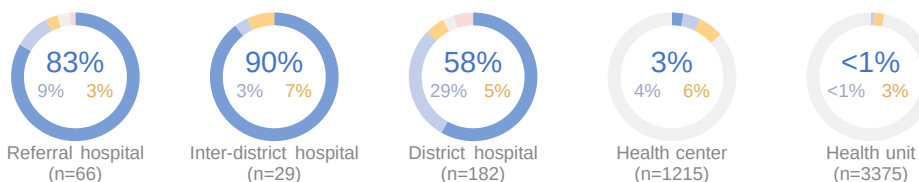


Main barriers impeding service delivery

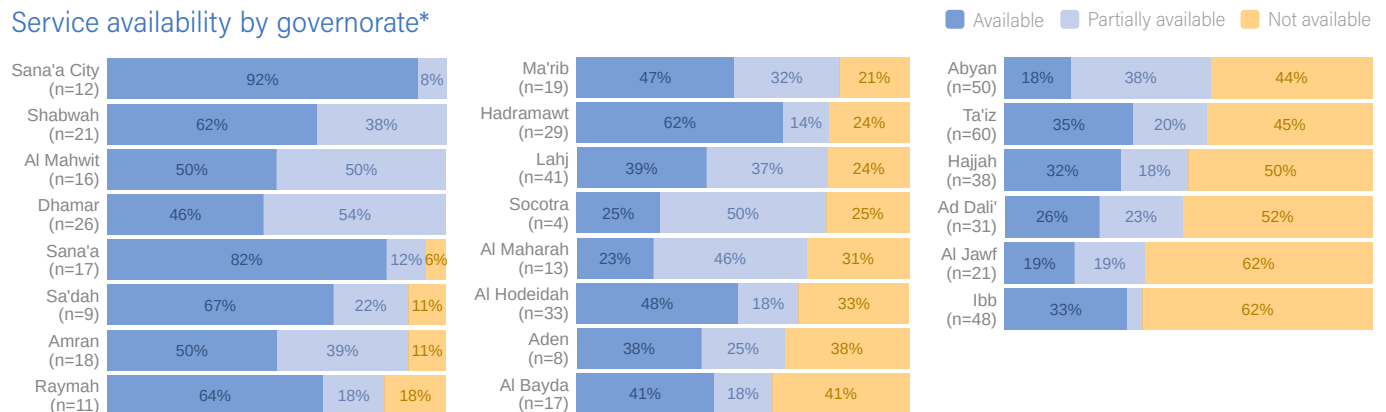
n = 319



Service availability by type of HF



Service availability by governorate*



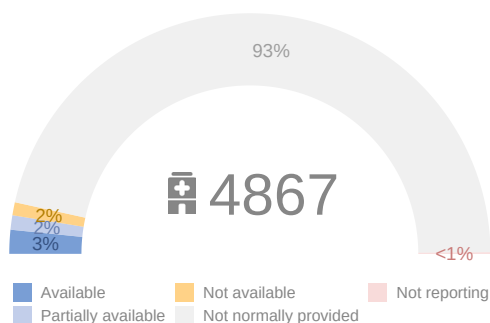
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

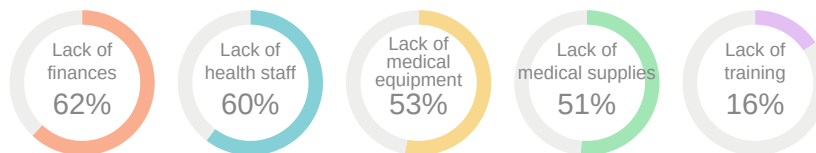
20 INPATIENT BED CAPACITY

Overall service availability

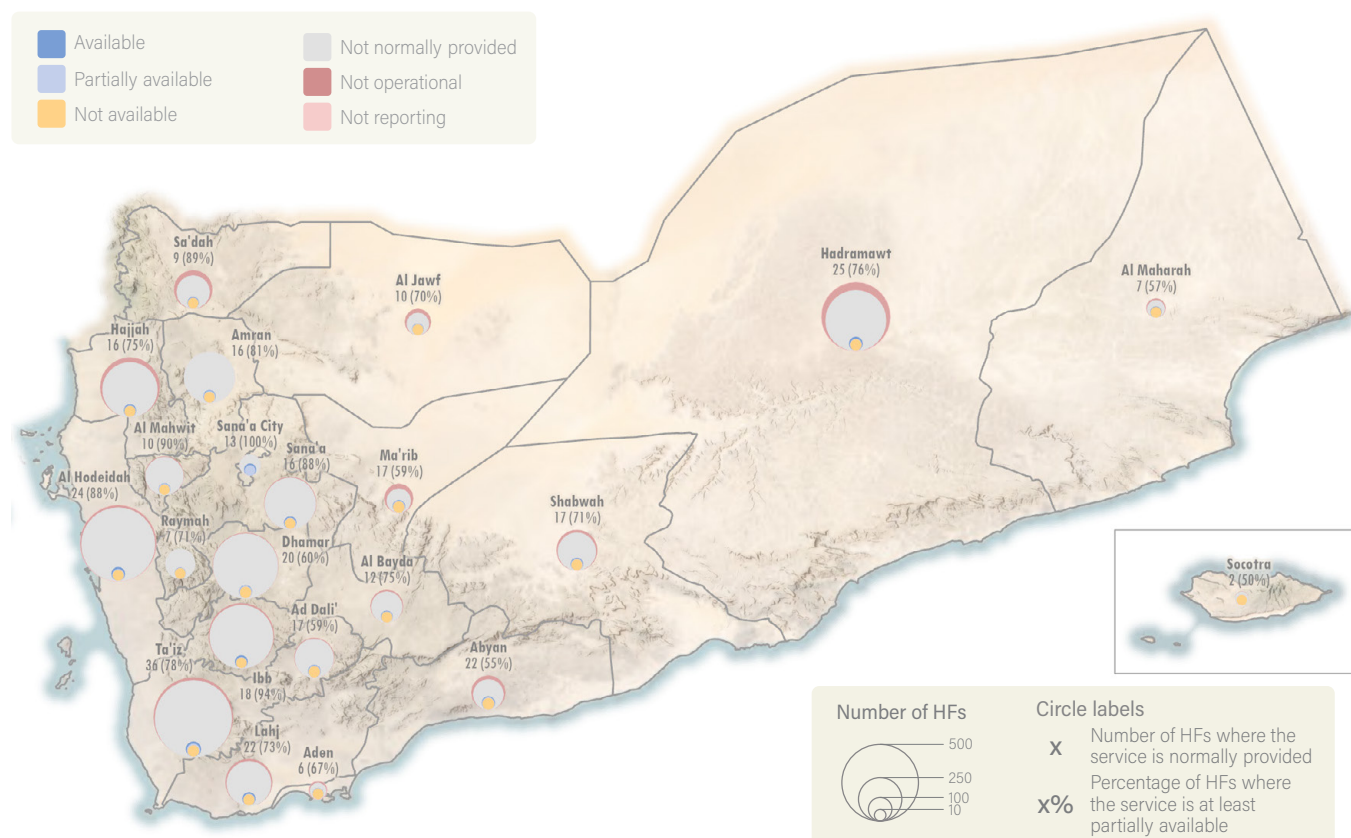
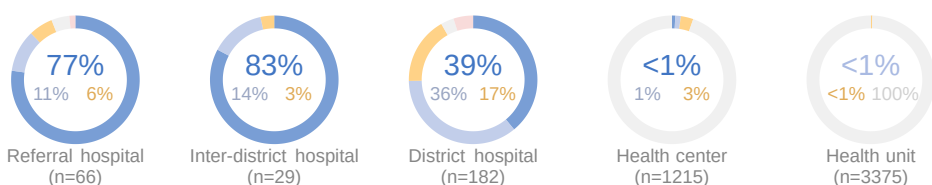


Main barriers impeding service delivery

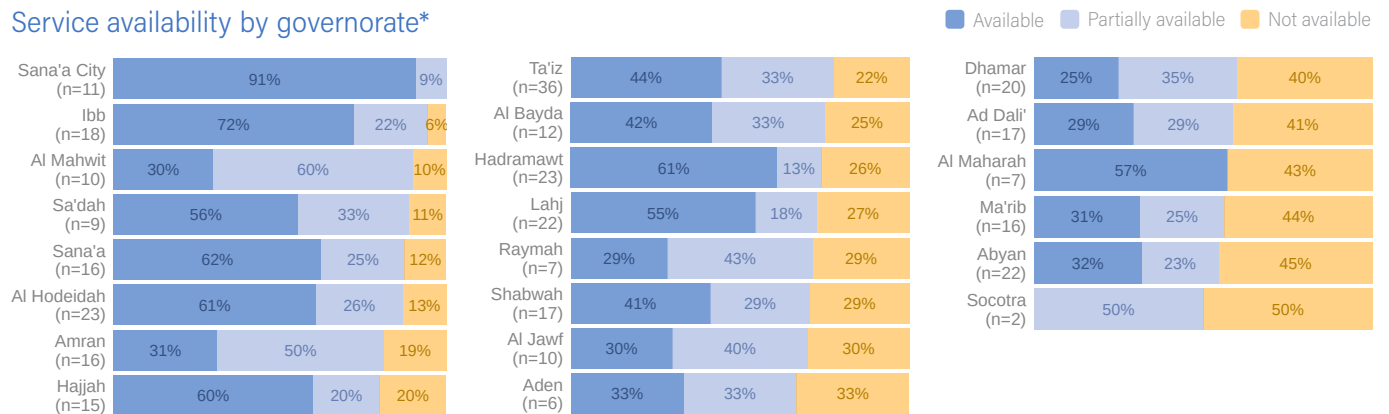
n = 179



Service availability by type of HF



Service availability by governorate*



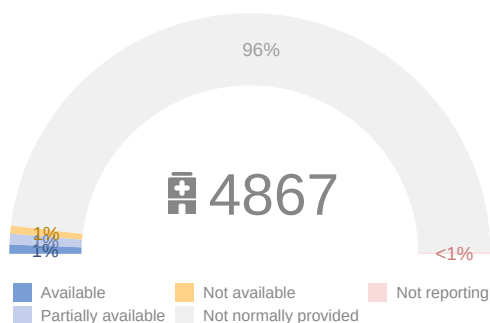
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

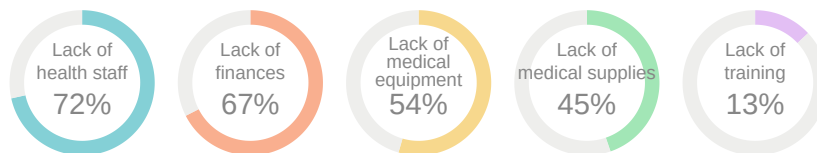
50 INPATIENT BED CAPACITY

Overall service availability

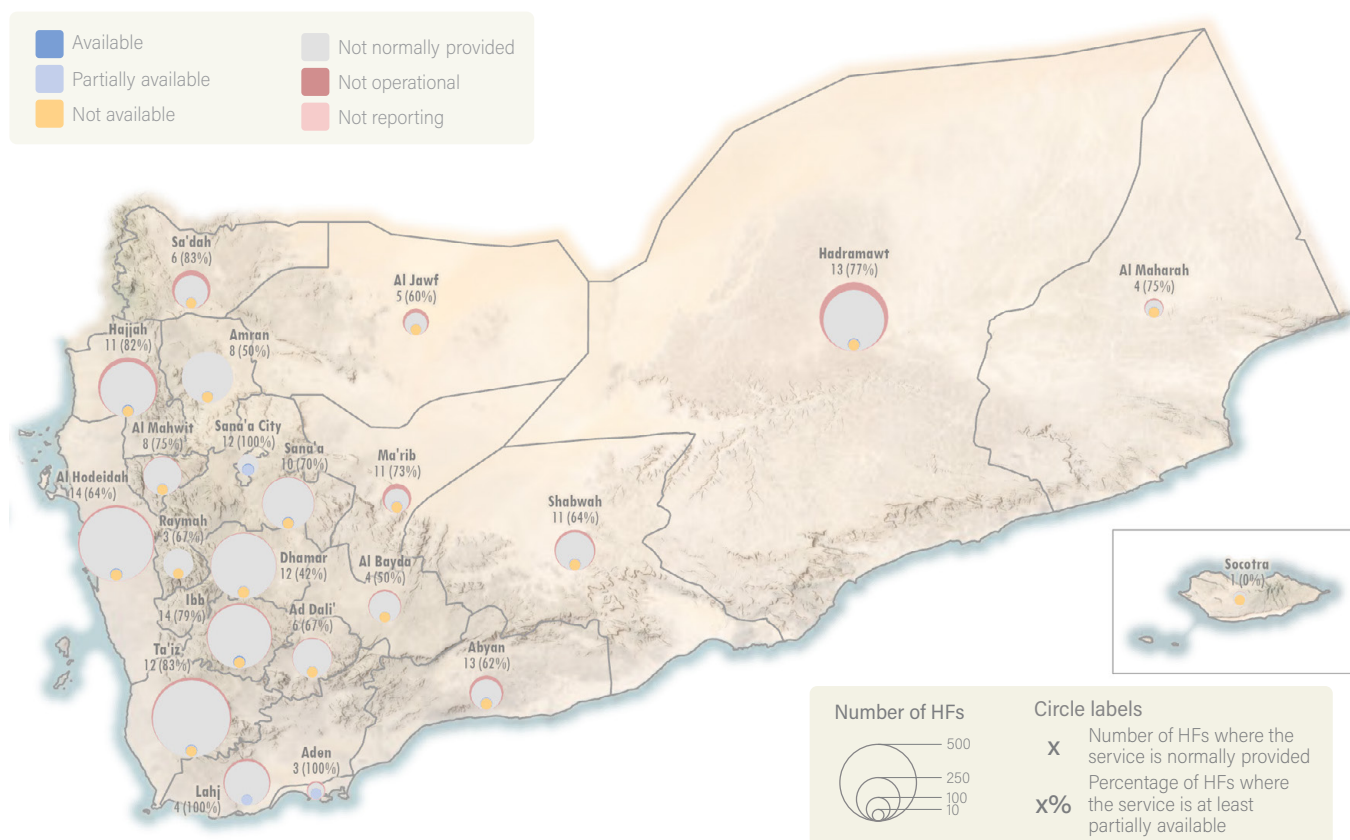
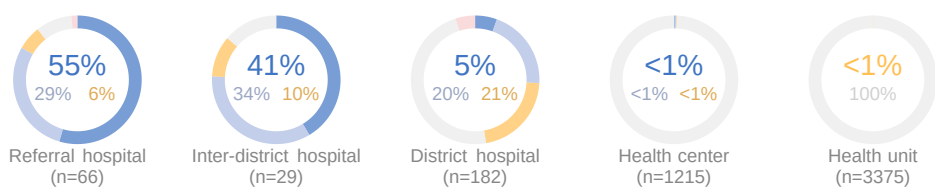


Main barriers impeding service delivery

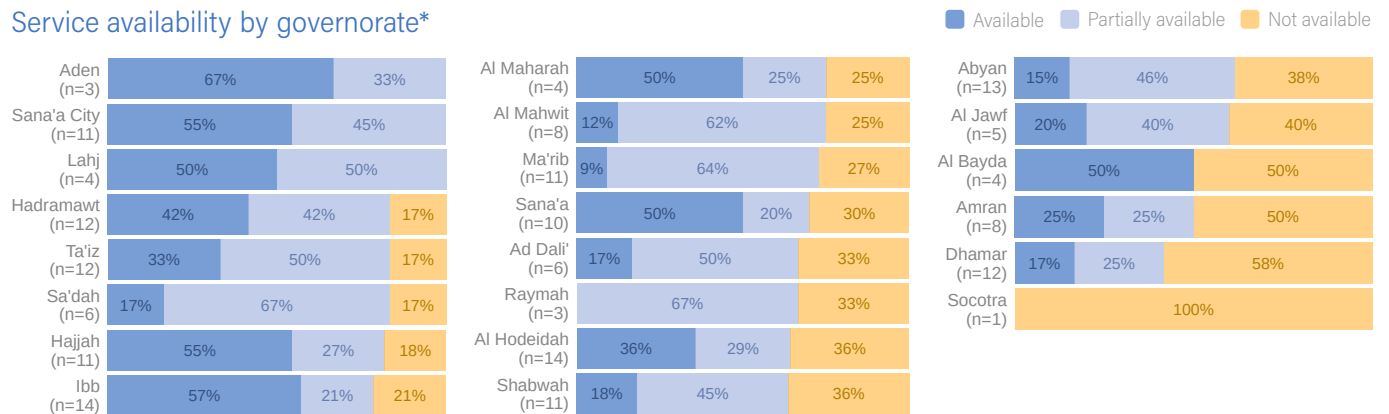
n = 123



Service availability by type of HF



Service availability by governorate*



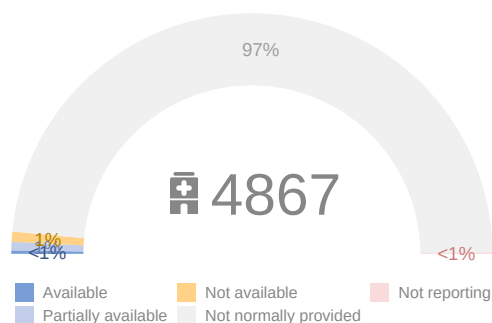
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

INPATIENT CRITICAL CARE MANAGEMENT

Overall service availability

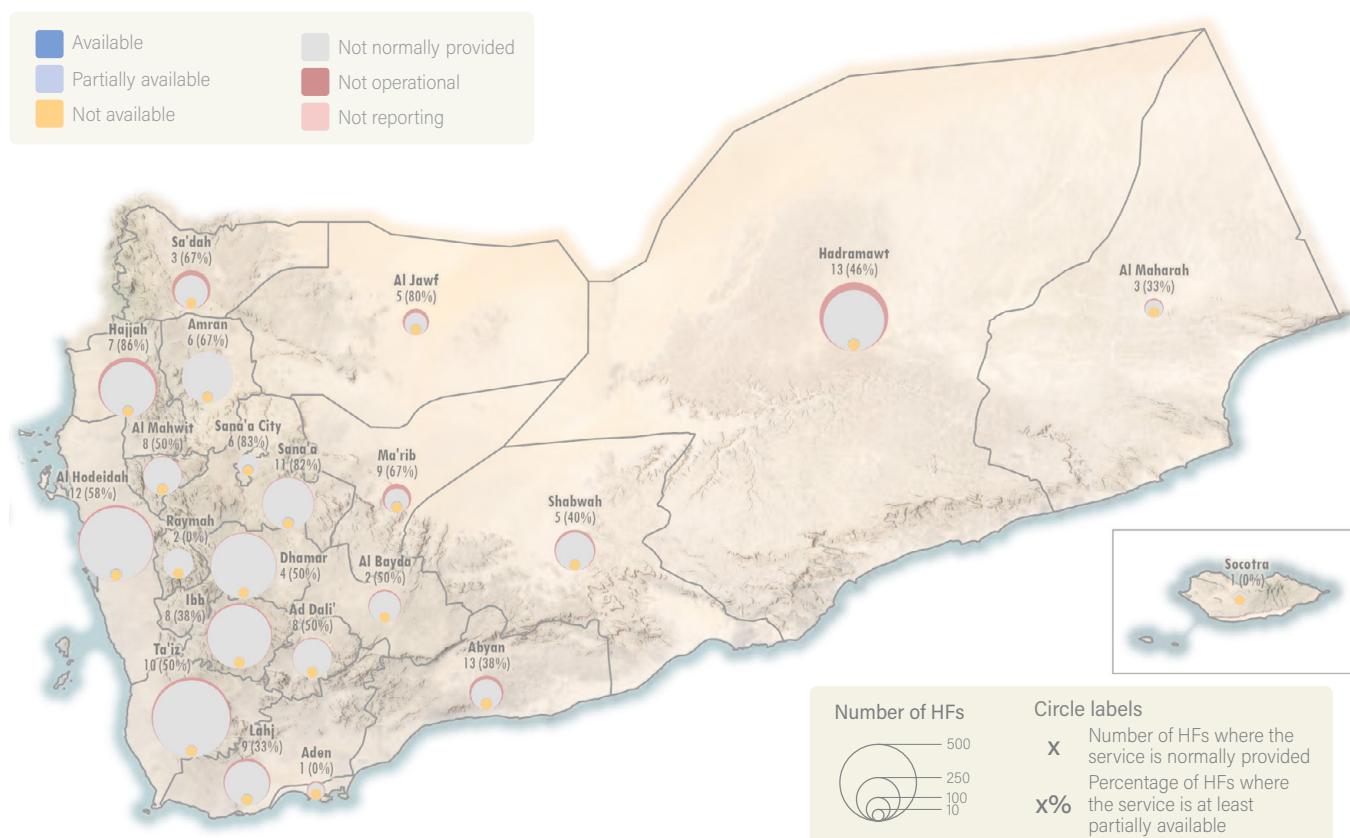
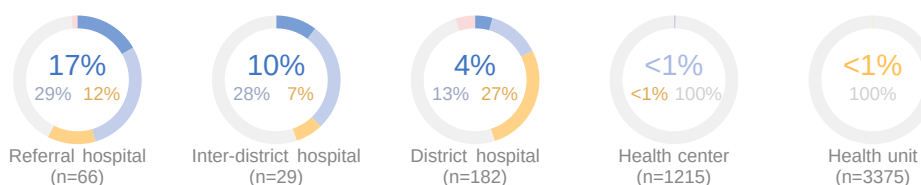


Main barriers impeding service delivery

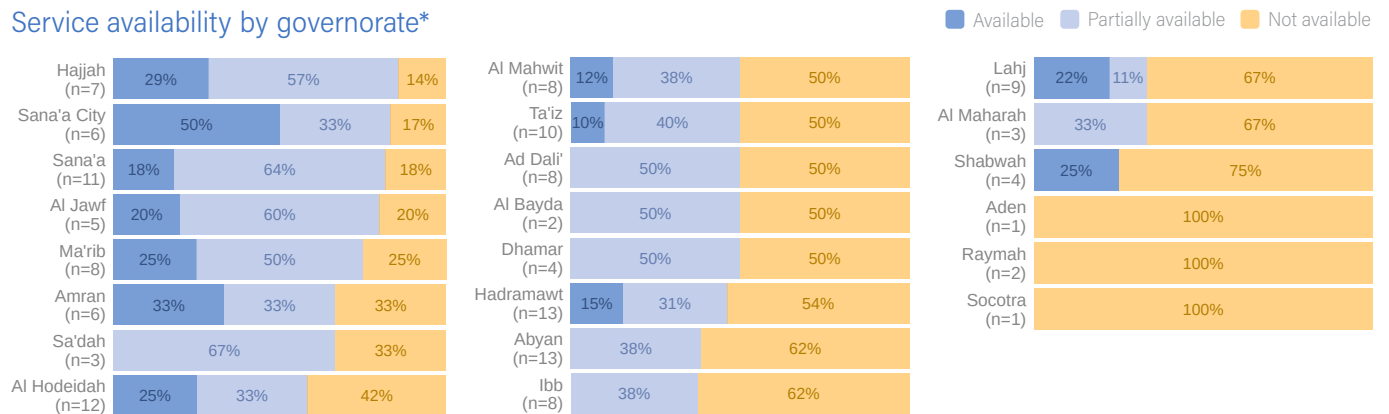
n = 122



Service availability by type of HF



Service availability by governorate*



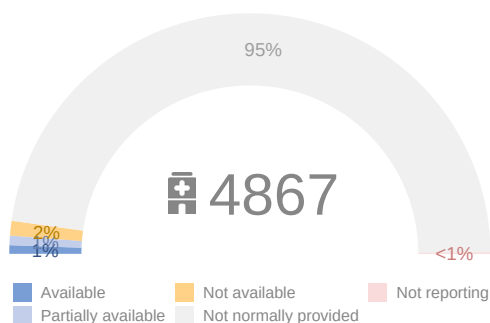
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

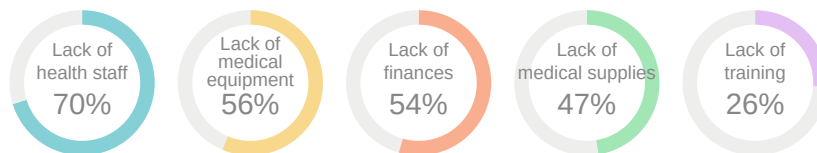
INTENSIVE CARE UNIT

Overall service availability

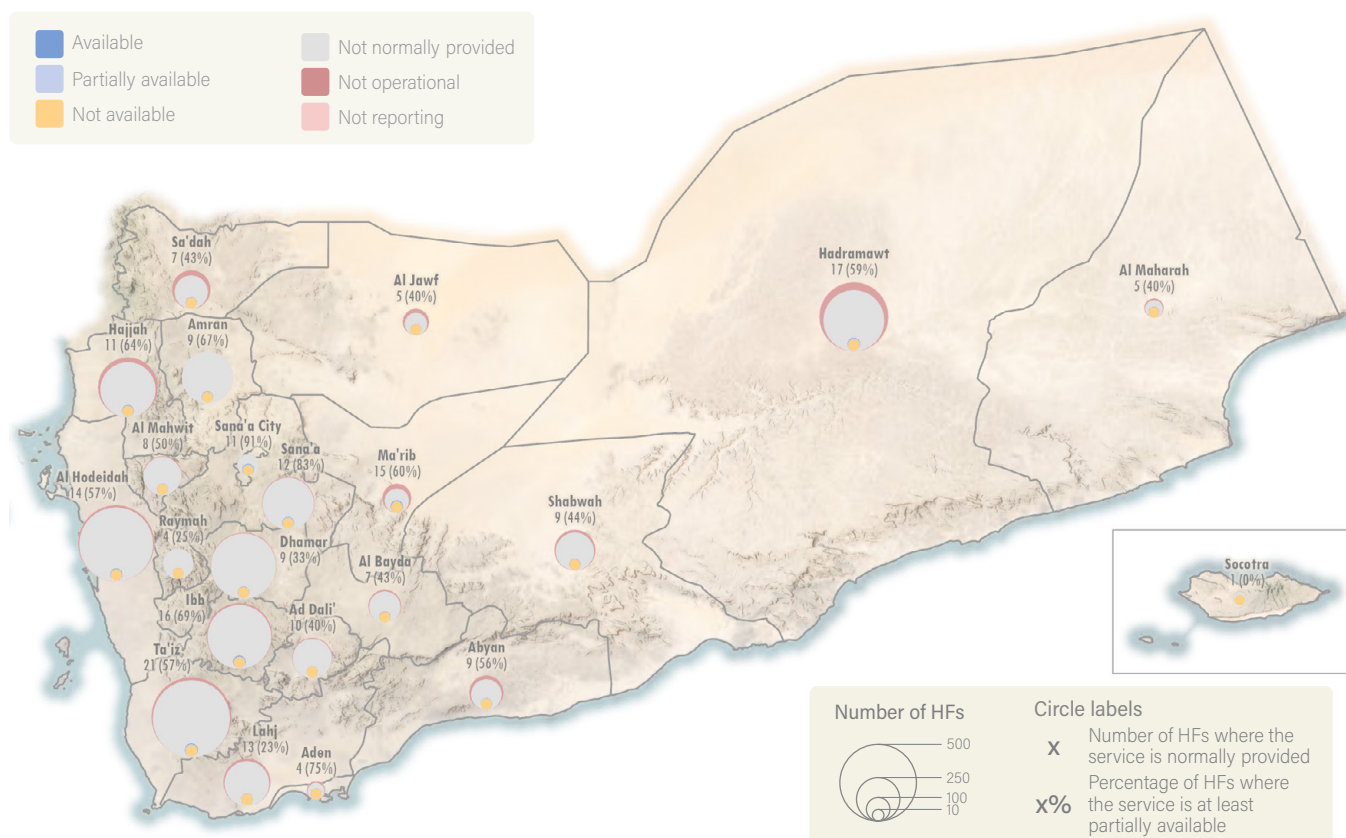
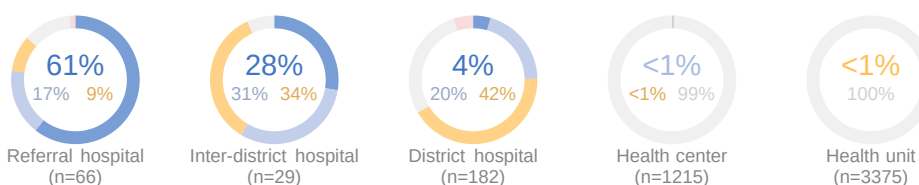


Main barriers impeding service delivery

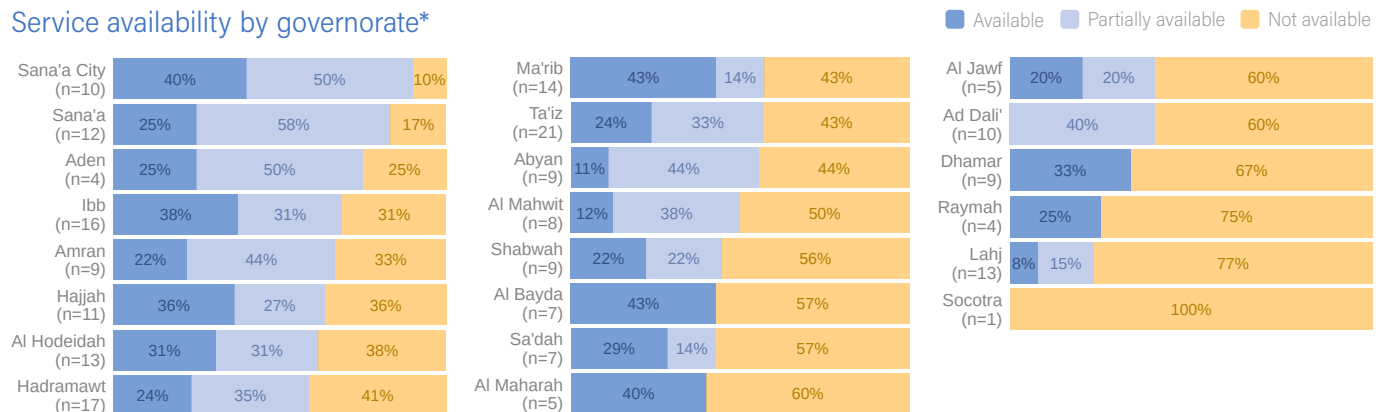
n = 158



Service availability by type of HF



Service availability by governorate*



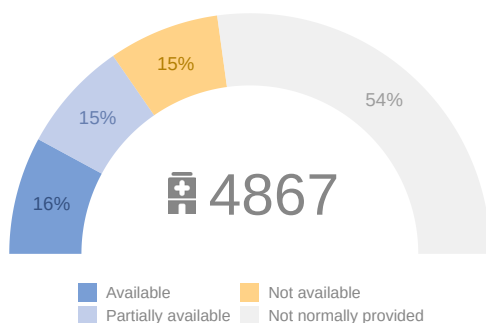
Main barriers impeding service delivery by governorate



* HFs with missing value or that reported "Not normally provided" are excluded.

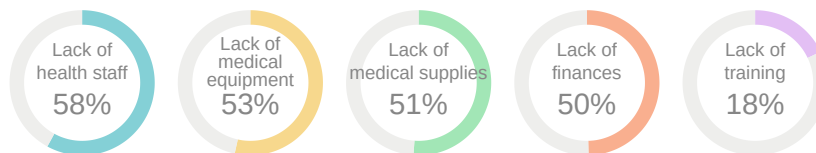
BASIC LABORATORY

Overall service availability

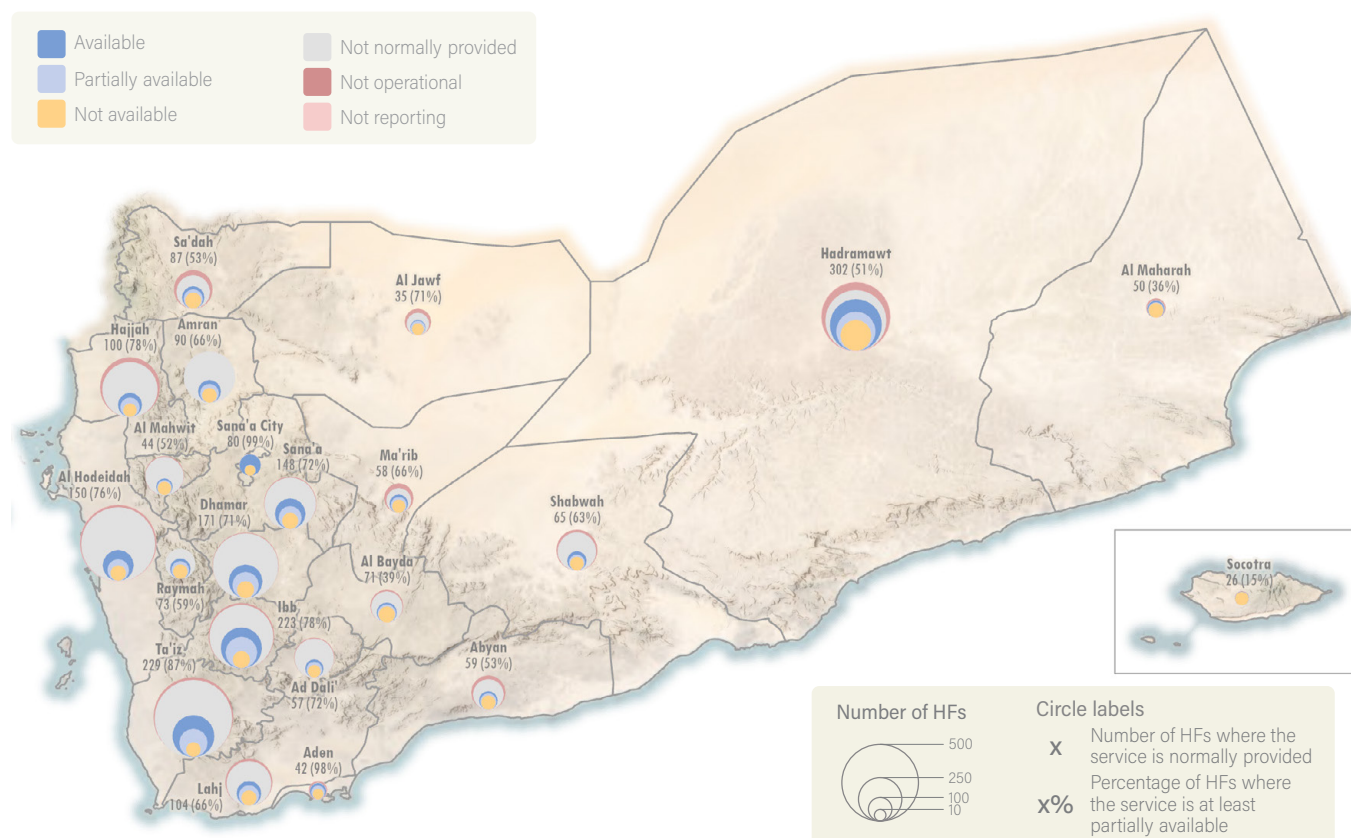
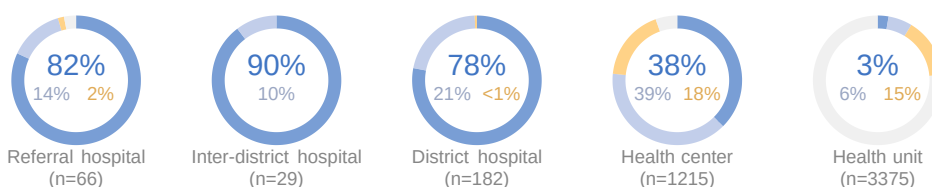


Main barriers impeding service delivery

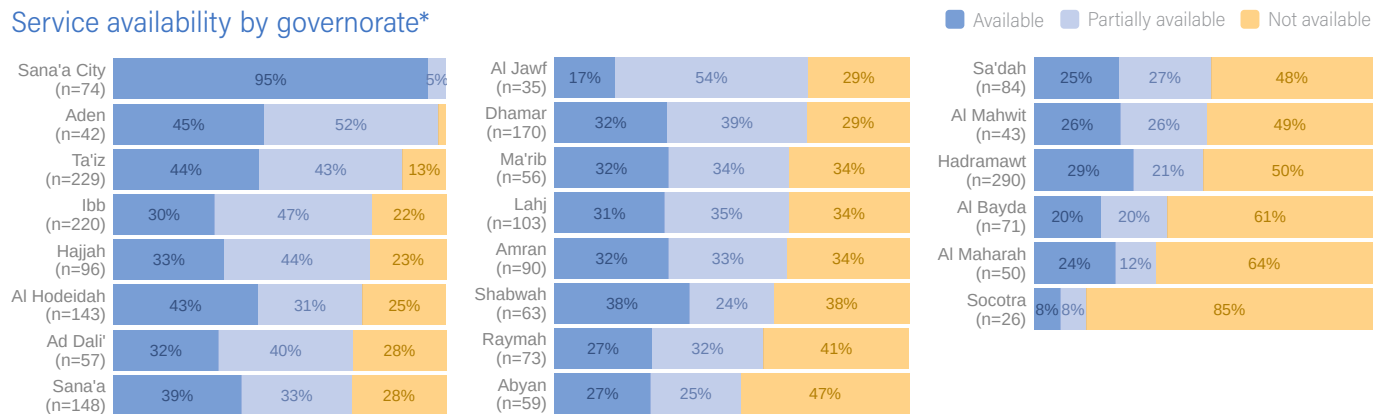
n = 1453



Service availability by type of HF



Service availability by governorate*



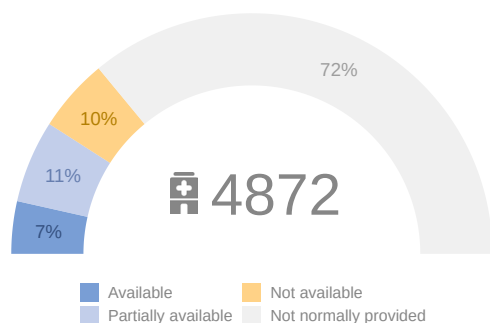
Main barriers impeding service delivery by governorate



* HFs with missing value or that reported "Not normally provided" are excluded.

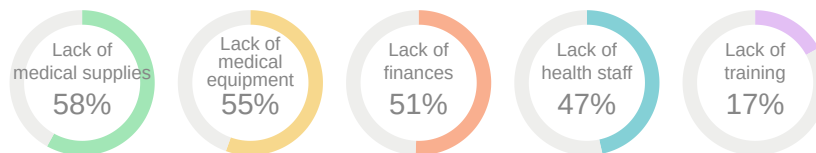
LABORATORY SERVICES SECONDARY LEVEL

Overall service availability

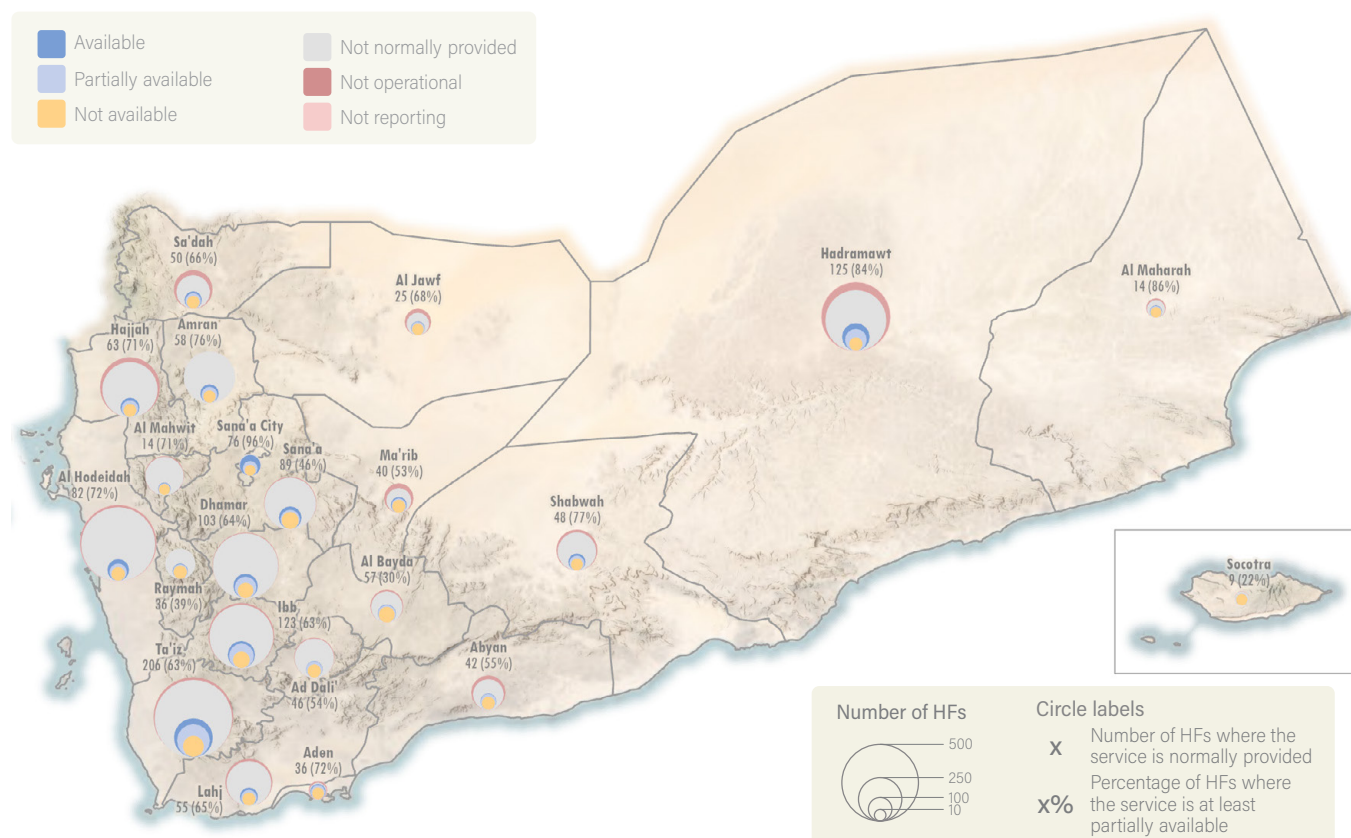
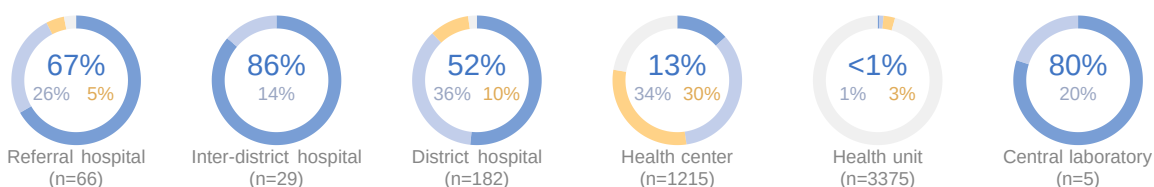


Main barriers impeding service delivery

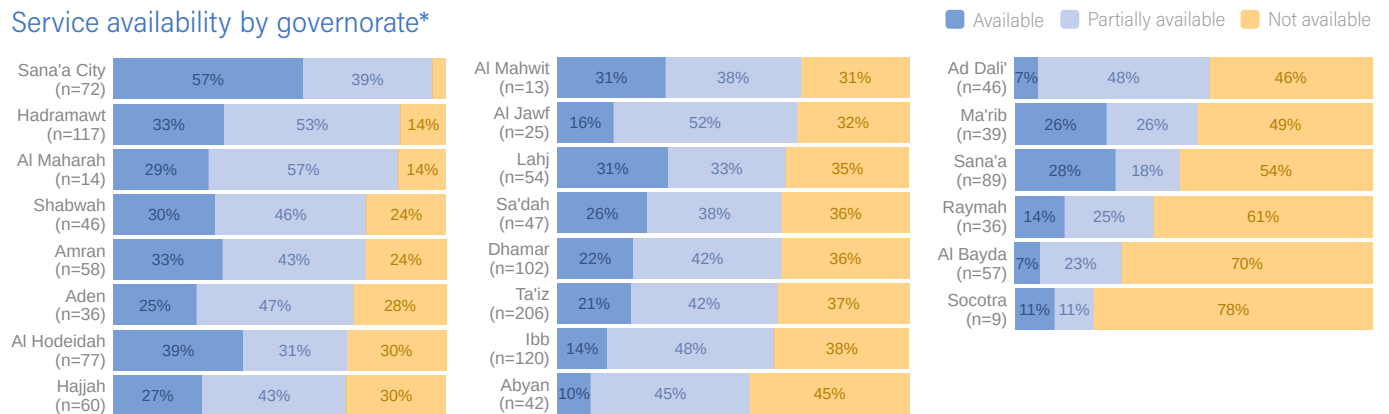
n = 1022



Service availability by type of HF



Service availability by governorate*



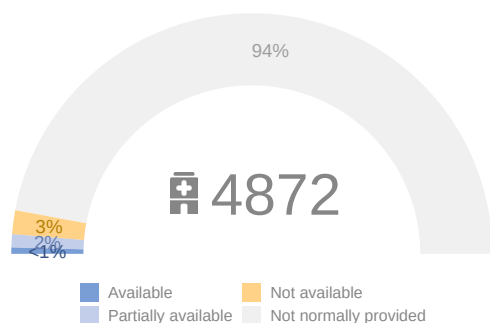
Main barriers impeding service delivery by governorate



* HFs with missing value or that reported "Not normally provided" are excluded.

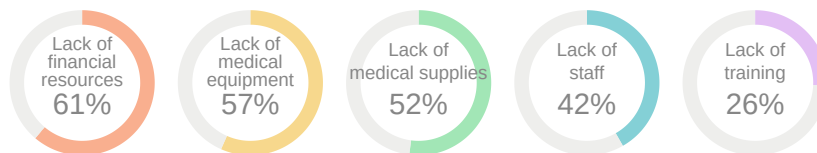
LABORATORY SERVICES TERTIARY LEVEL

Overall service availability

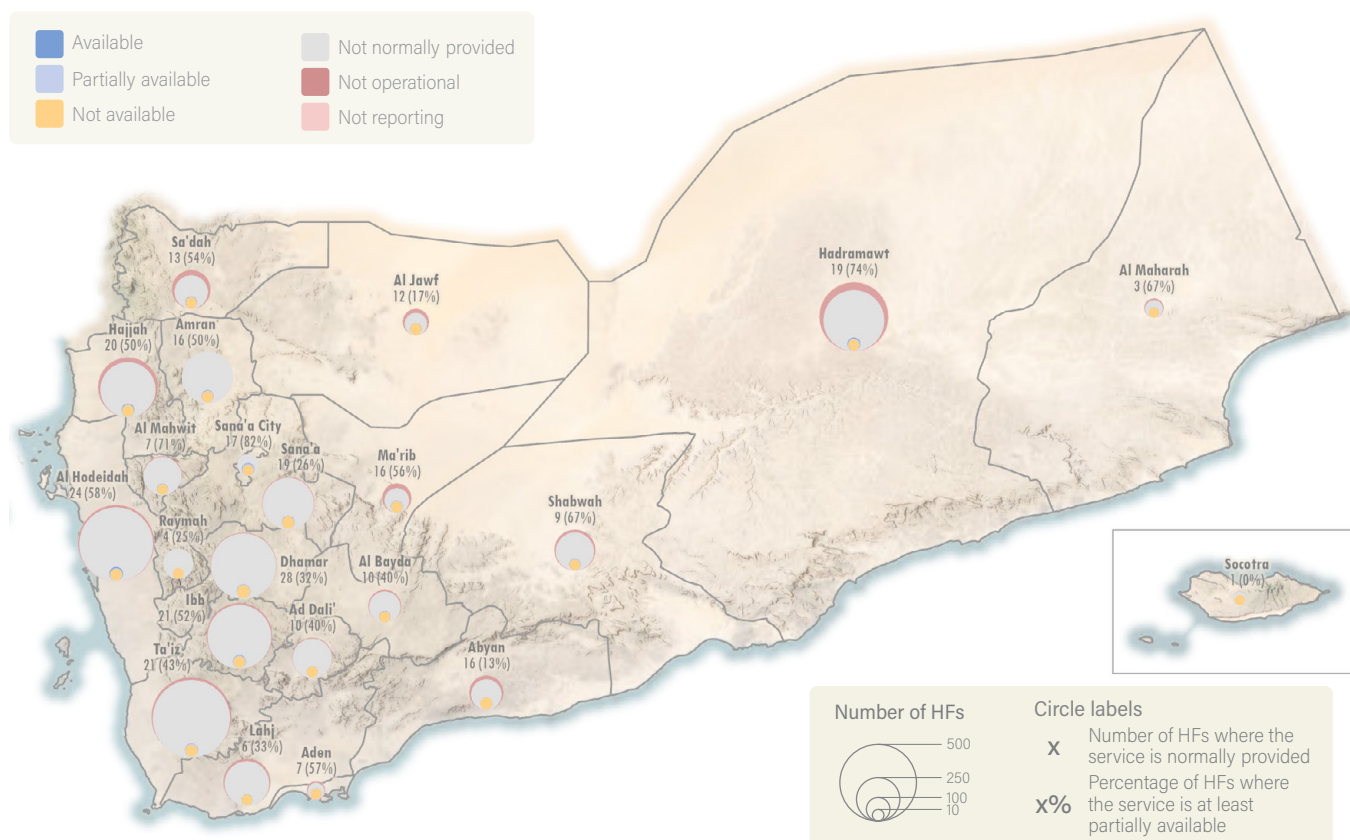
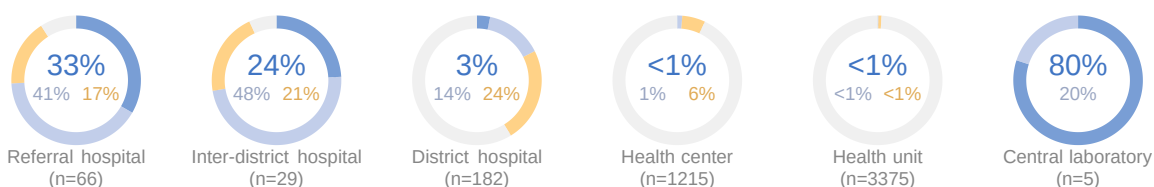


Main barriers impeding service delivery

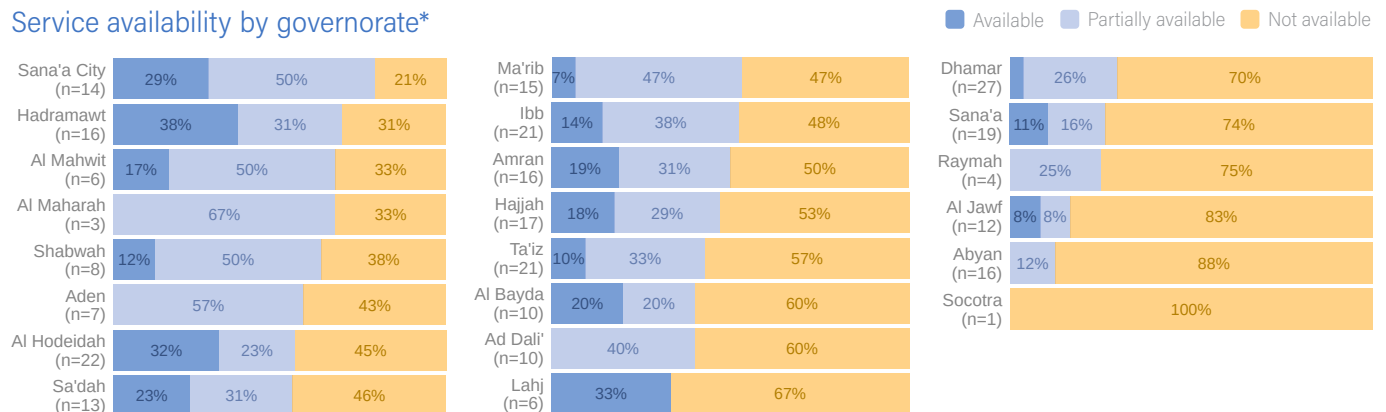
n = 242



Service availability by type of HF



Service availability by governorate*



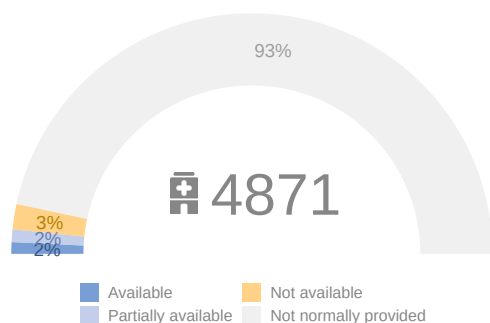
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

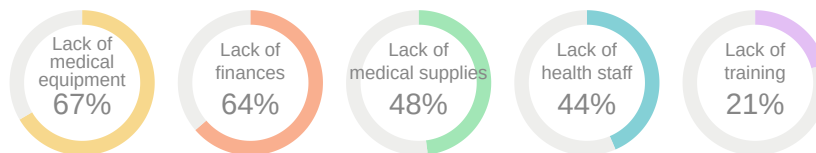
BLOOD BANK SERVICES

Overall service availability

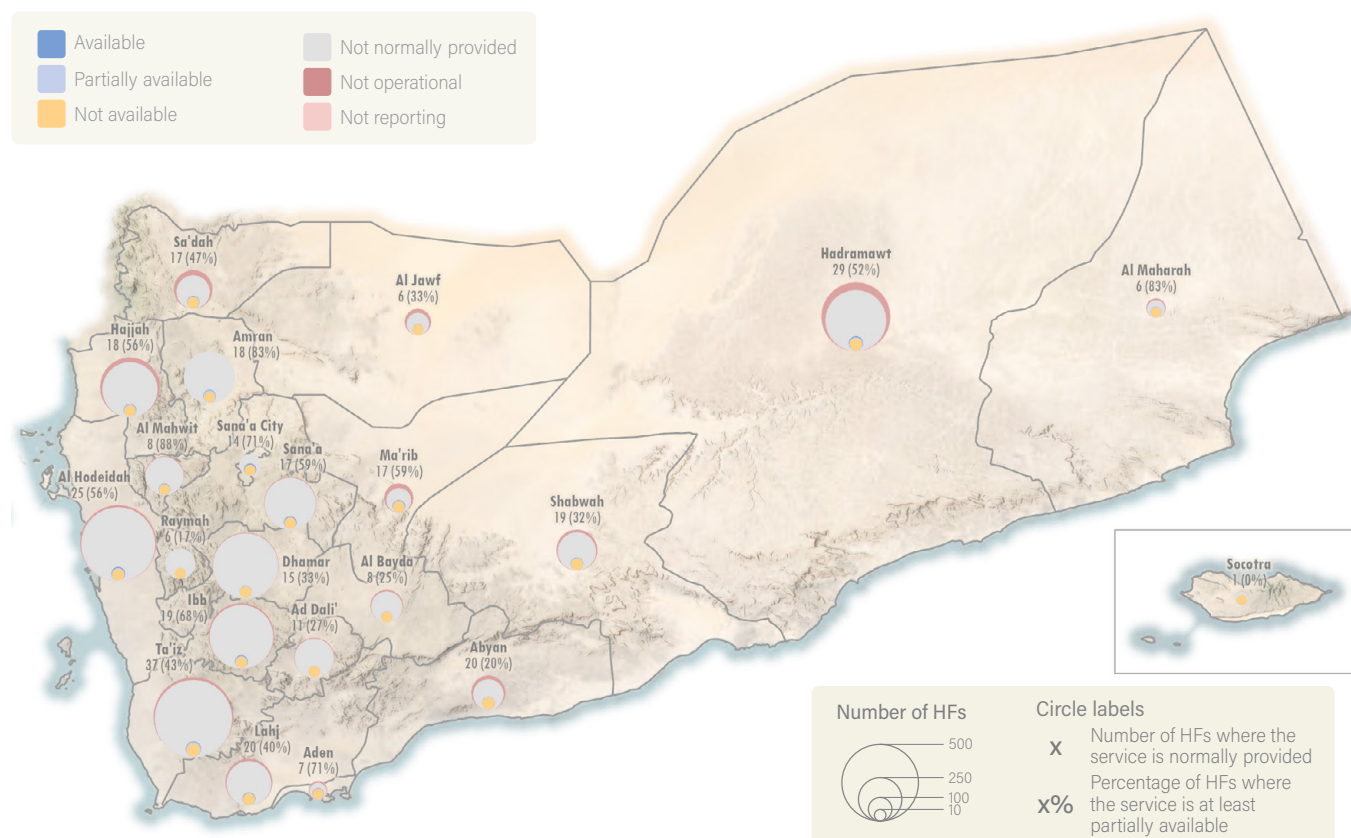
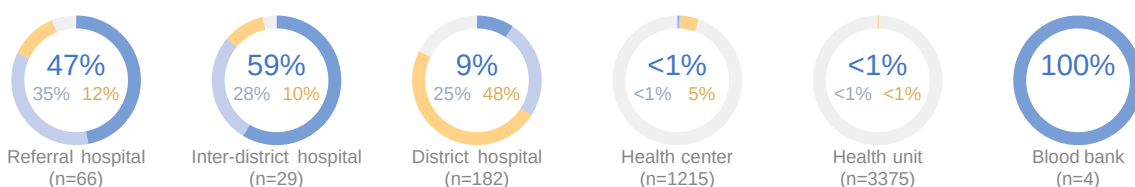


Main barriers impeding service delivery

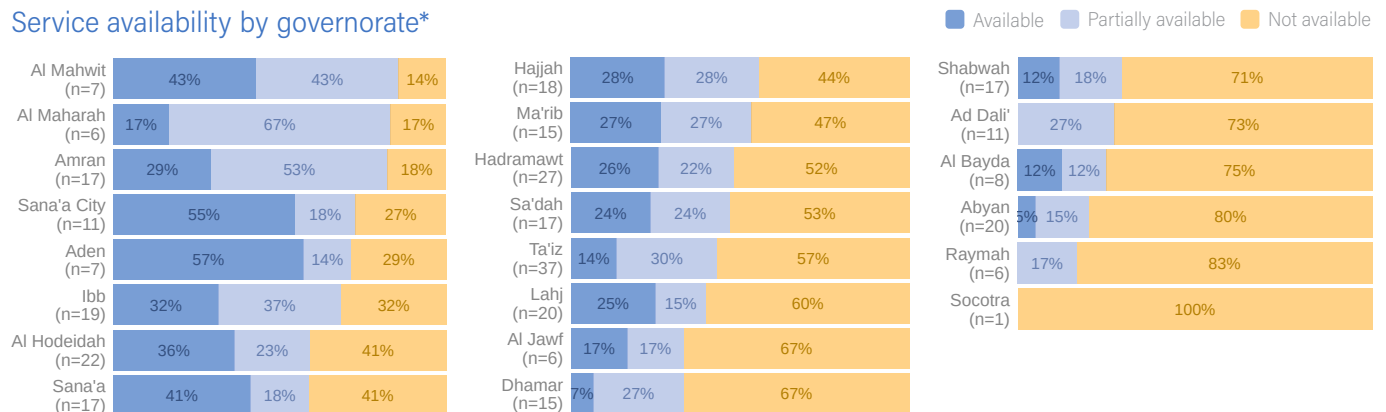
n = 248



Service availability by type of HF



Service availability by governorate*



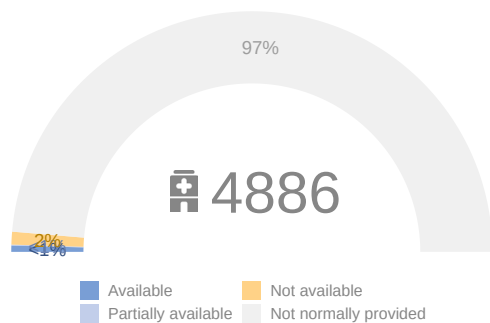
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

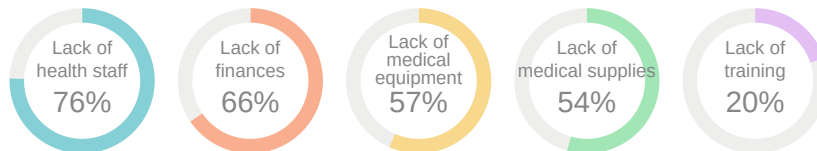
HEMODIALYSIS UNIT

Overall service availability

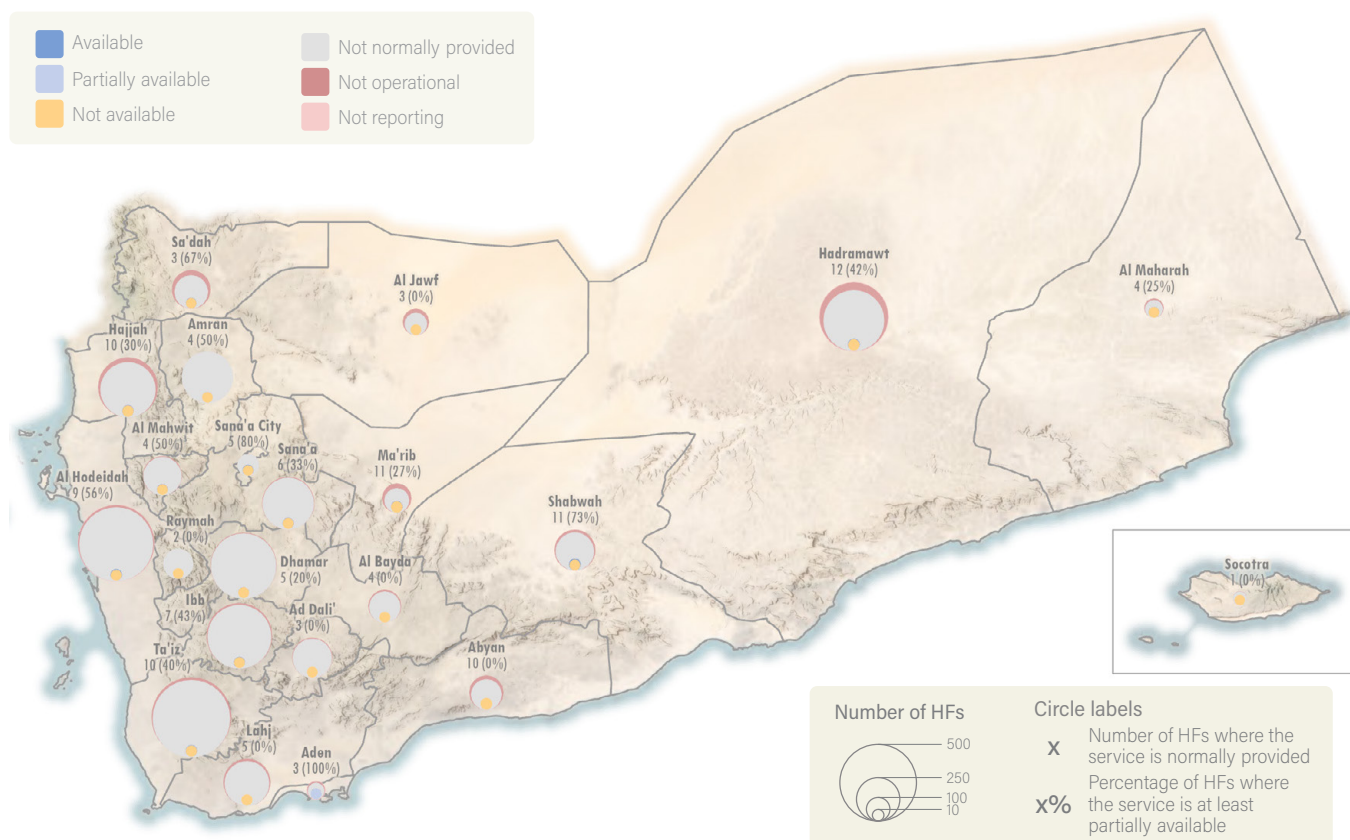
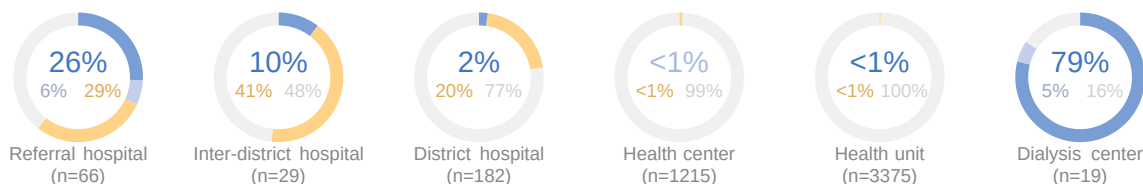


Main barriers impeding service delivery

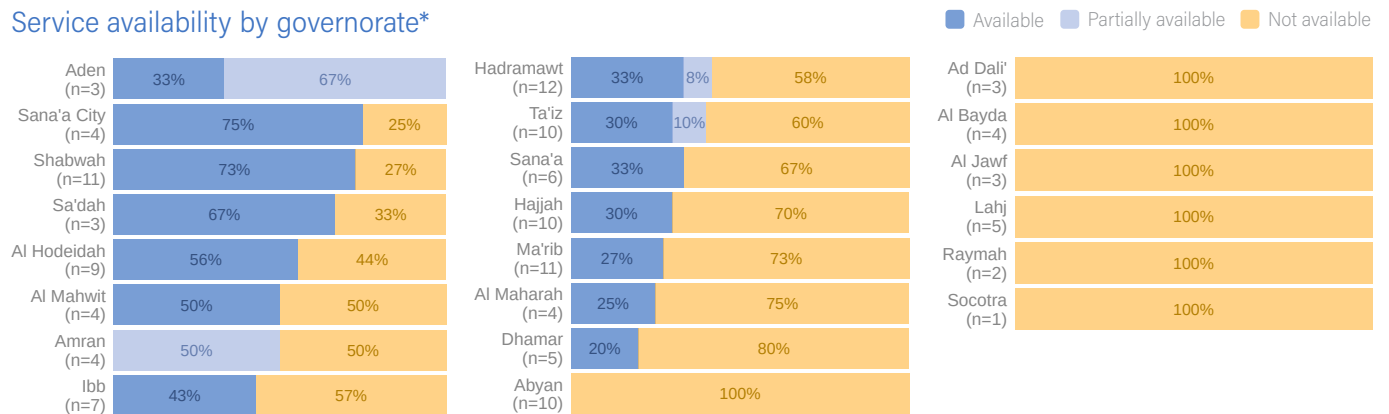
n = 90



Service availability by type of HF



Service availability by governorate*



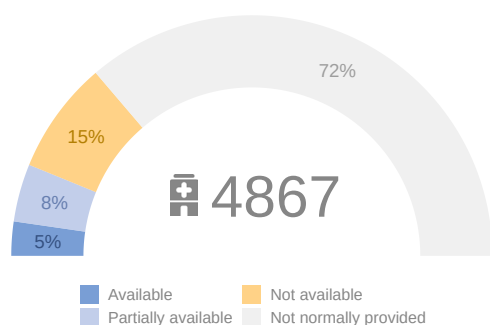
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

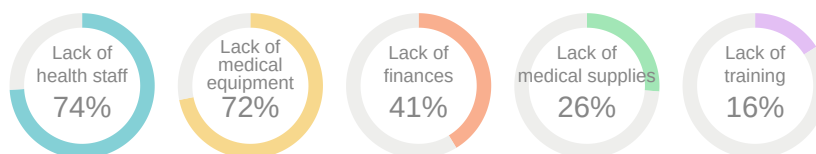
BASIC X-RAY SERVICE

Overall service availability

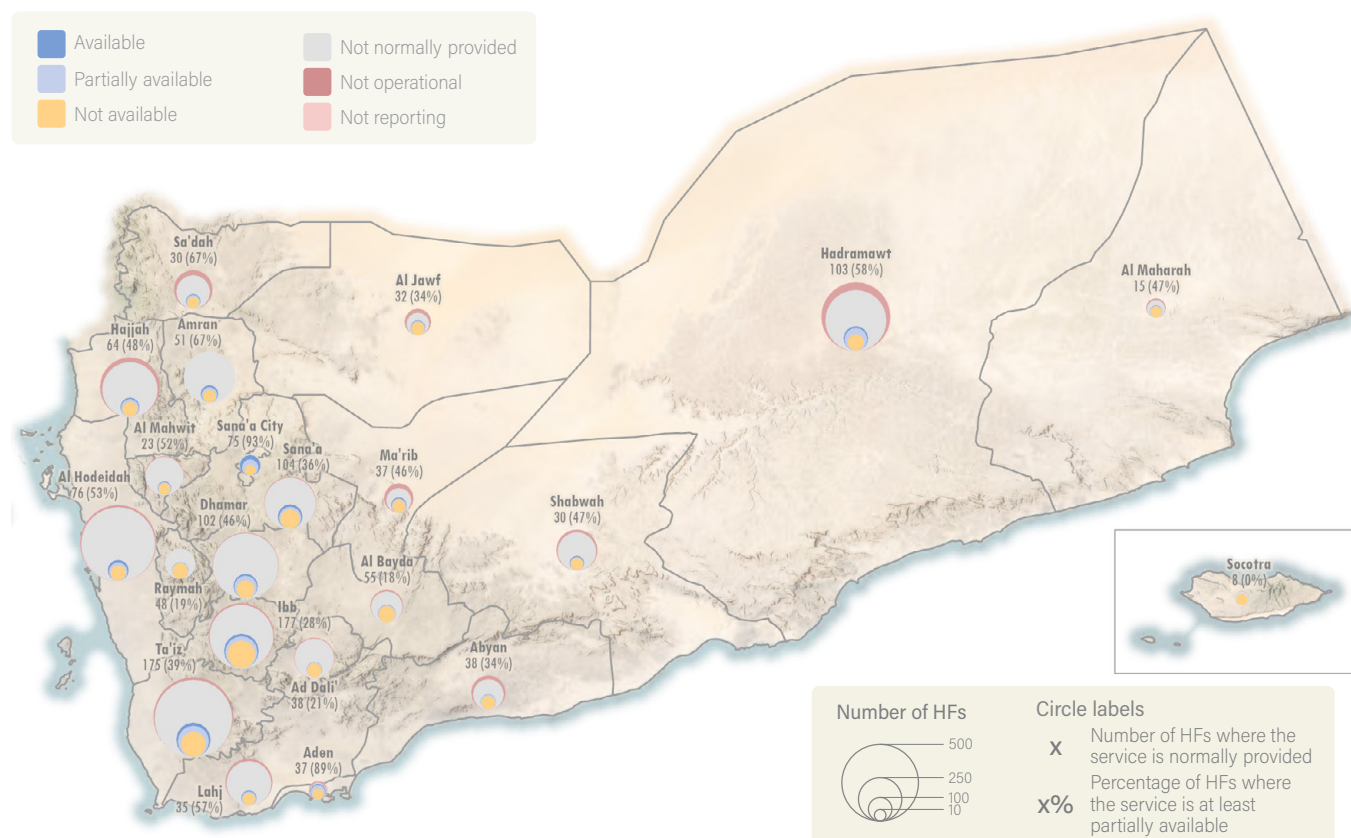
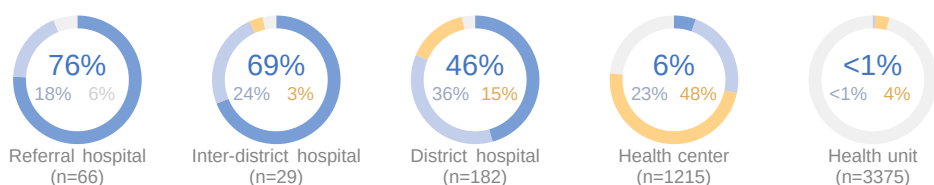


Main barriers impeding service delivery

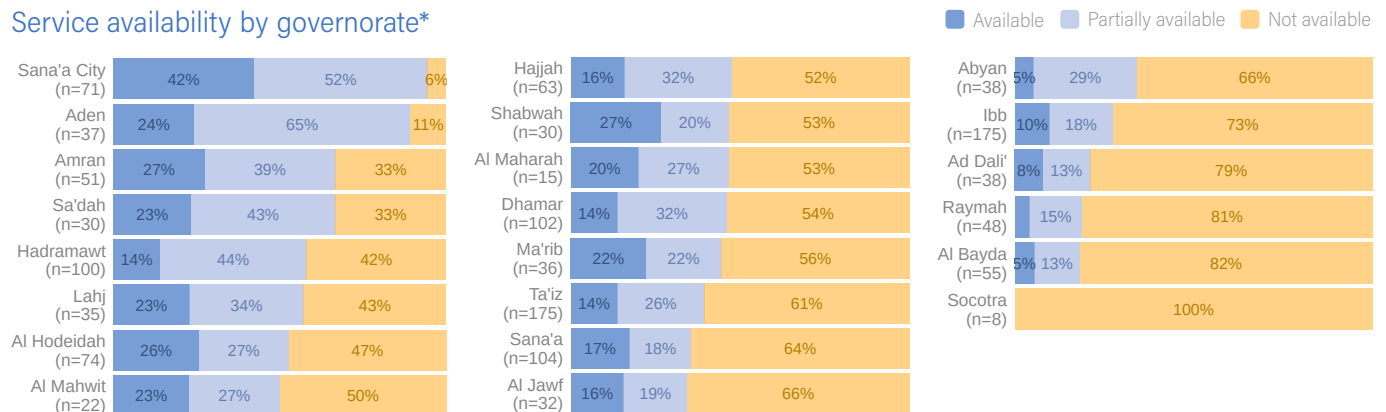
n = 1116



Service availability by type of HF



Service availability by governorate*



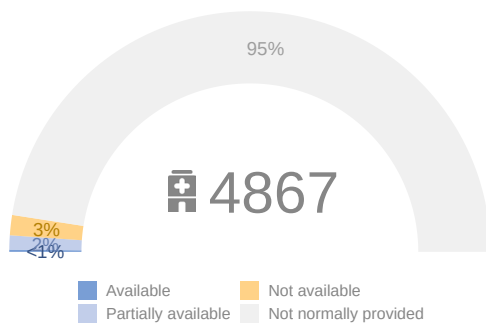
Main barriers impeding service delivery by governorate



* HFs with missing value or that reported "Not normally provided" are excluded.

RADIOLOGY UNIT

Overall service availability

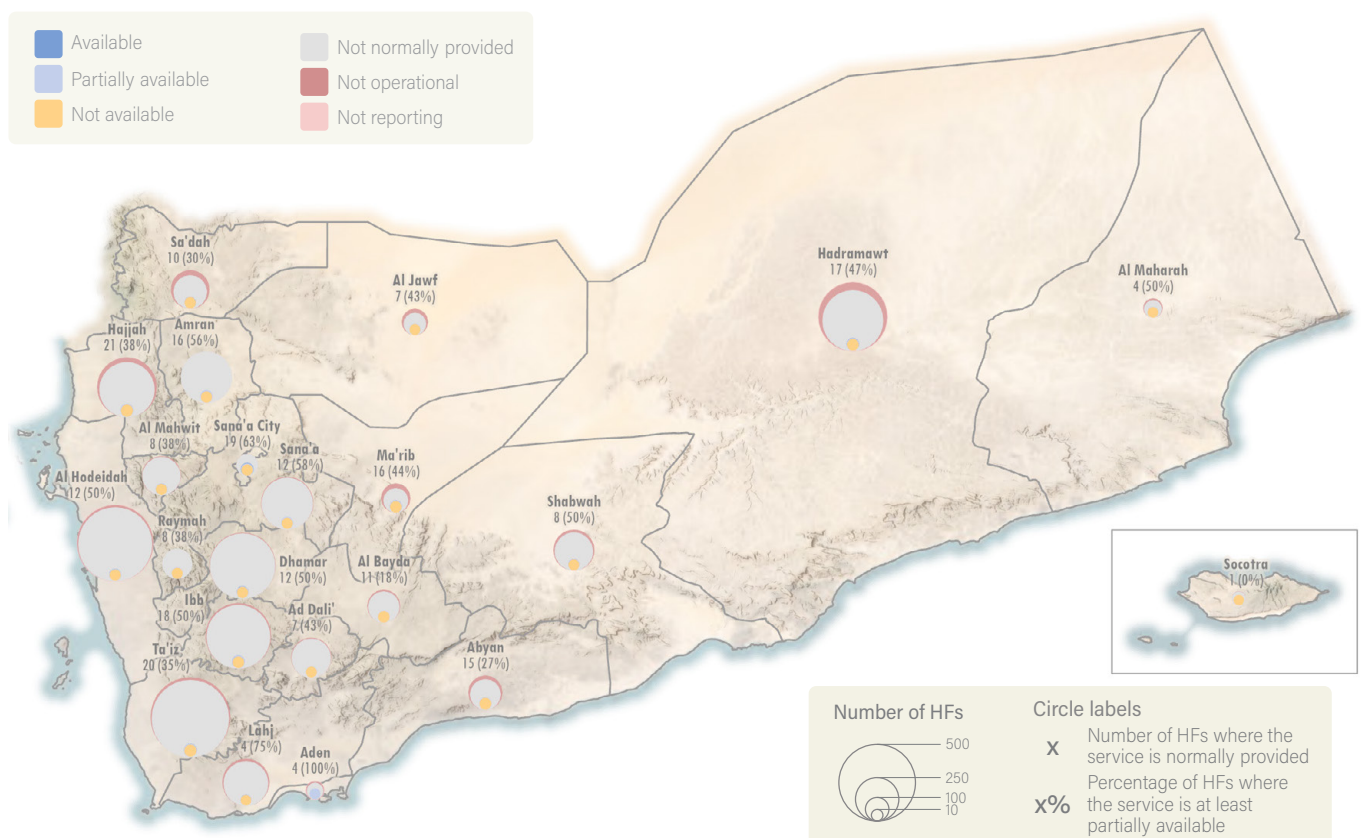
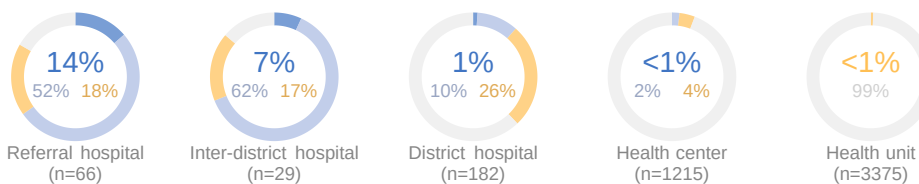


Main barriers impeding service delivery

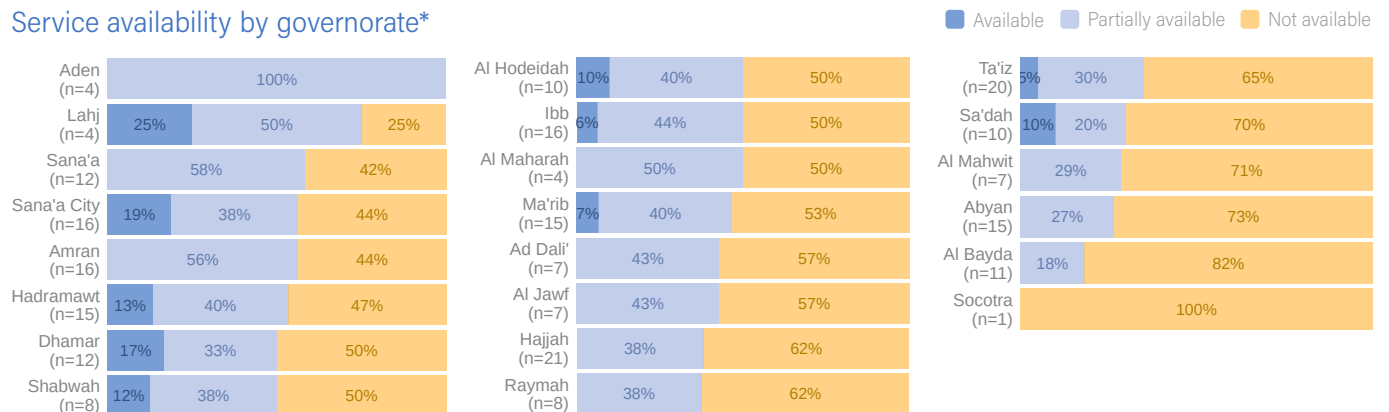
n = 225



Service availability by type of HF



Service availability by governorate*



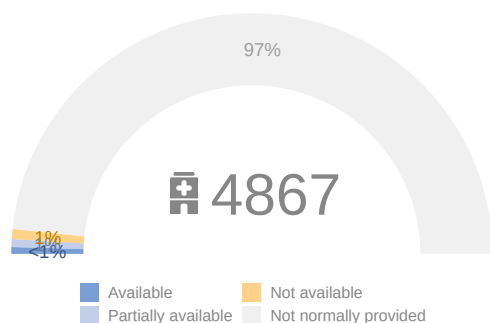
Main barriers impeding service delivery by governorate



* HFs with missing value or that reported "Not normally provided" are excluded.

MEDICAL EVACUATION PROCEDURES

Overall service availability

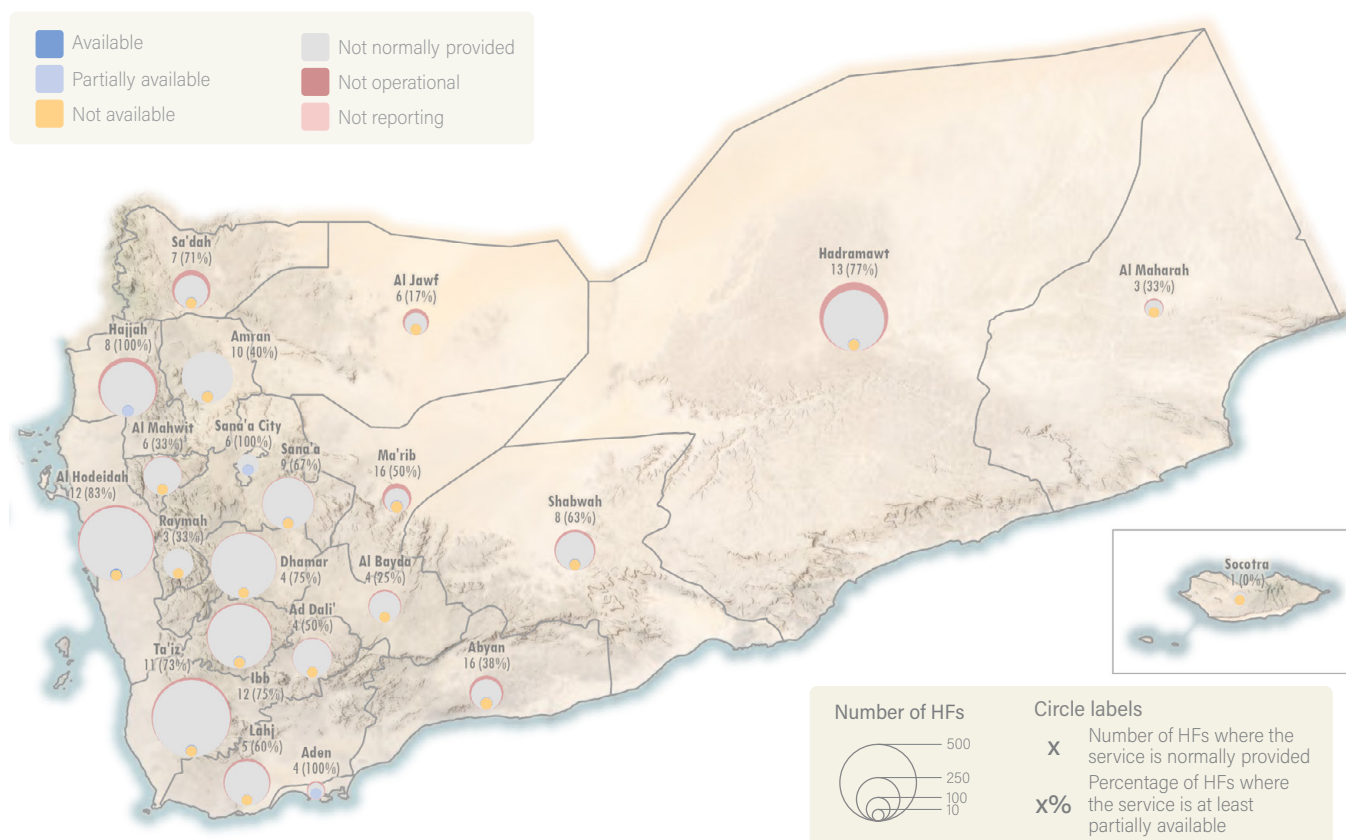
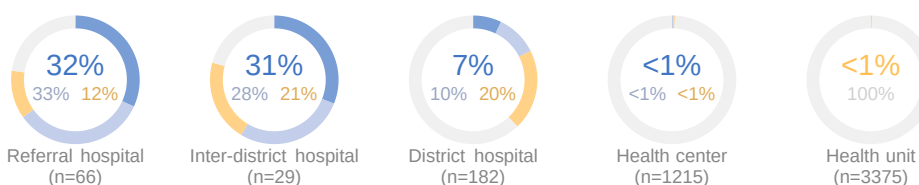


Main barriers impeding service delivery

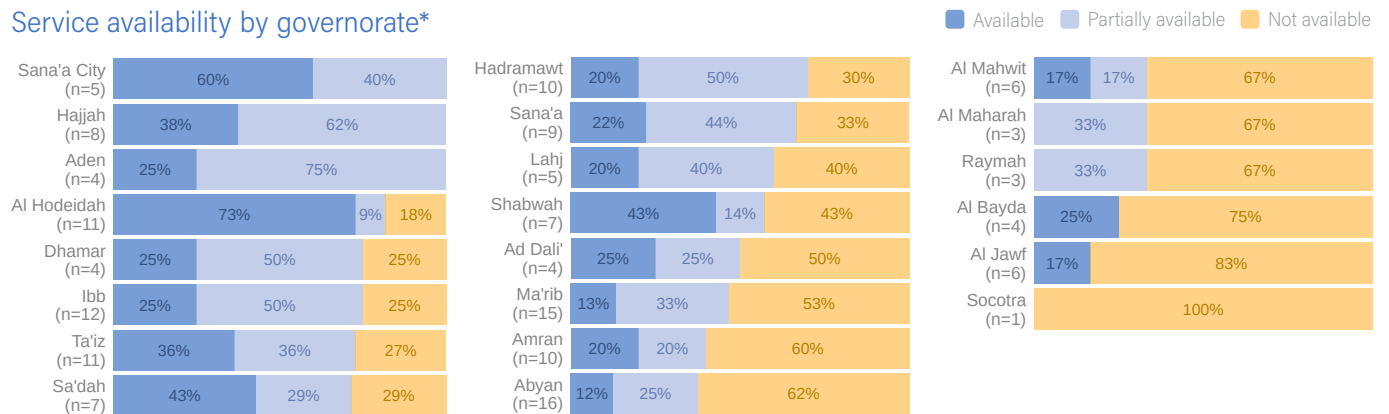
n = 117



Service availability by type of HF



Service availability by governorate*



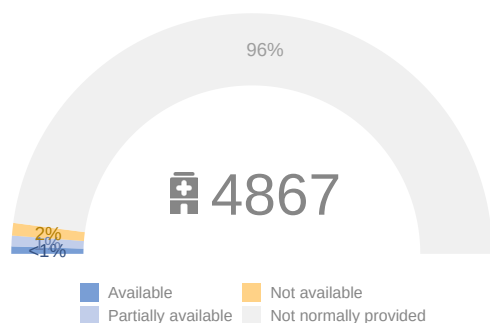
Main barriers impeding service delivery by governorate



* HF's with missing value or that reported "Not normally provided" are excluded.

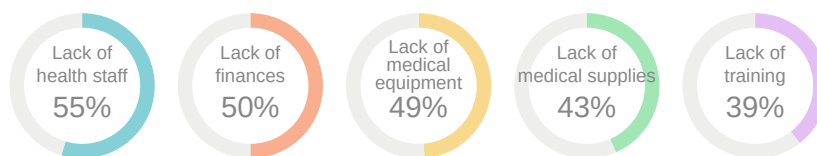
PROCEDURES FOR MASS CASUALTY SCENARIOS

Overall service availability

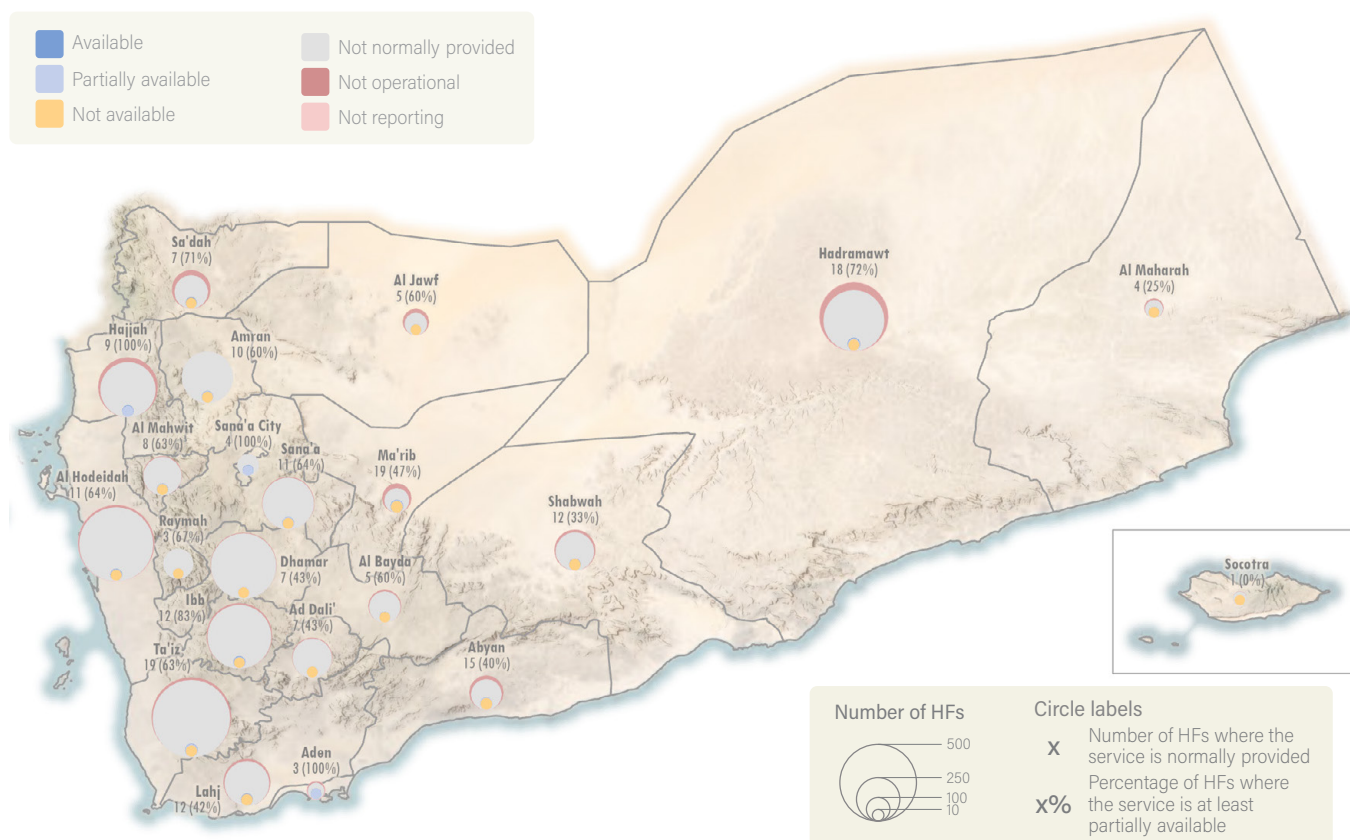
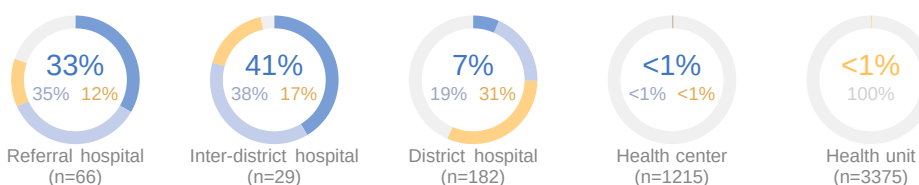


Main barriers impeding service delivery

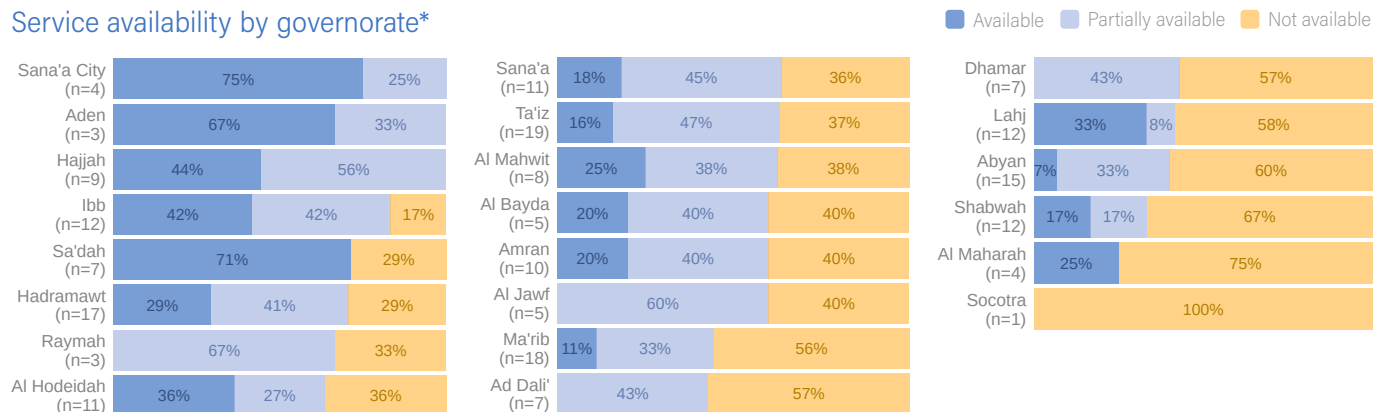
n = 152



Service availability by type of HF



Service availability by governorate*



Main barriers impeding service delivery by governorate



* HFs with missing value or that reported "Not normally provided" are excluded.

ANNEXES



ANNEX I: DEFINITIONS OF ESSENTIAL SERVICES

SERVICE	DEFINITION	EXPECTED SERVICE				
		RH	IDH	DH	HC	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	X	X		
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	X	X	X	X
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	X	X	X	
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.	X	X	X		
WHO BASIC EMERGENCY CARE	Basic syndrome-based management of difficulty breathing, shock, altered mental status, and polytrauma for neonates, children and adults	X	X	X	X	X
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.	X	X	X		
REFERRAL CAPACITY	Referral procedures, means of communication, access to transportation	X	X	X	X	X
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	X	X	X		
ACCEPTANCE OF COMPLEX REFERRALS	Acceptance of complex referrals with remote decision support for pre-hospital providers and lower-level facilities	X	X			
OUTPATIENT SERVICES FOR PRIMARY CARE	Outpatient services for primary care with the availability of all essential drugs for primary care as per national guidelines.	X	X	X	X	X
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.	X	X	X	X	
HOME VISITS	Include promoting self-care practices, monitoring non-communicable diseases (NCD) medication compliance, and palliative care.	X	X	X	X	X
MINOR TRAUMA DEFINITIVE MANAGEMENT	Pain management, tetanus toxoid, and human antitoxin, minor surgery kits, suture absorbable/silk with needles, disinfectant solutions, band-aids, gauzes, cotton wool.	X	X	X	X	X
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	X		
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	X	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	X	X	X	
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	X	X	X	X	

SERVICE	DEFINITION	EXPECTED SERVICE				
		RH	IDH	DH	HC	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	X	X		
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	X	X	X		
BASIC LABORATORY	Basic hematology, bacteriology, and clinical pathology services	X	X	X	X	
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		X				
HEMODIALYSIS UNIT		X				
BASIC X-RAY SERVICE	X-ray service (basic radiological unit) and ultrasound	X	X	X	X	
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	X	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
HAJJAH	2,428,326
IBB	3,244,039
LAHJ	1,129,754
MA'RIB	1,072,048
RAYMAH	592,069
SA'DAH	1,004,814
SANA'A	1,138,450
SANA'A CITY	3,869,414
SHABWAH	707,407
SOCOTRA	72,422
TA'IZ	3,203,121
TOTAL	31,888,698

