# HeRAMS Yemen Baseline report 2023

### 🗿 🞖 🛒 🗇 🌢 💪 前 煤 🏦 目 🔜 🦓 🏠 🕸 🏂 🖄



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



July 2023

#### © World Health Organization 2023

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <u>https://creativecommons.org/licenses/by-nc-sa/3.0/igo</u>).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition."

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization (<u>http://www.wipo.int/amc/en/mediation/rules</u>).

**Suggested citation.** HeRAMS Yemen baseline report 2023 - Communicable disease services: A comprehensive mapping of availability of essential services and barriers to their provision; 2023

Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

General disclaimers. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

# **HeRAMS YEMEN**

## BASELINE REPORT 2023

Communicable disease services

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

July 2023









## CONTENTS

Acronyms	V
Disclaimer	vi
Part I: Overview of the availability of communicable disease services	
How to read the charts Overview of health facilities assessed	2
Availability of service package and main barriers	
Service availability by catchment population	7
Main barriers impeding service delivery	8
Part II: In-depth analysis by health service	10
How to read the charts and the maps	11
Syndromic surveillance	
Event-based surveillance	
Malaria at the primary care level	
Vector control	
Support mass drug administration	
Tuberculosis	
Multidrug-resistant tuberculosis	
IEC on local priority diseases	
Local priority diseases	
Management of severe and/or complicated communicable diseases	
Isolation unit or room	
Annexes	35
Annex I: Definitions of essential services	
Annex II: Population estimations	

# ACRONYMS

HeRAMS	Health Resources and Services Availability Monitoring System
HF	Health facility
IEC	Information, education, and communications
MDRTB	Multidrug-resistant tuberculosis
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 fourth report of the *HeRAMS Yemen baseline report 2023* series focusing on the availability of communicable disease services. It is a continuation of the first report on the operational status of the health system<sup>1</sup> and should always be interpreted in conjunction with results presented in the first report. Additional reports are available covering (*a*) essential clinical and trauma care services<sup>2</sup>, (*b*) child health and nutrition services<sup>3</sup>, (*c*) maternal and newborn services<sup>4</sup>, and (*d*) non-communicable disease and mental health services<sup>5</sup>.

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

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

<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, https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-operational-status-of-the-health-system.

<sup>&</sup>lt;sup>2</sup> HeRAMS Yemen baseline report 2023 - General clinical and trauma care services: A comprehensive mapping of availability of essential services and barriers to their provision, <u>https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-general-clinical-and-trauma-care-services</u>.

<sup>&</sup>lt;sup>3</sup> HeRAMS Yemen baseline report 2023 - Child health and nutrition services: A comprehensive mapping of availability of essential services and barriers to their provision, <u>https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-child-health-and-nutrition-services</u>.

<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, <u>https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-maternal-and-newborn-services</u>.

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

# **Part I:** Overview of the availability of communicable disease services



### How to read the charts

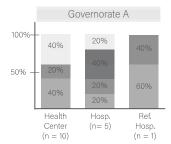
#### Service availability

The first part of the report provides an overview of availability of communicable disease 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.

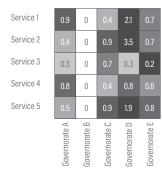
#### Bar chart

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 <u>annex I</u>.



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

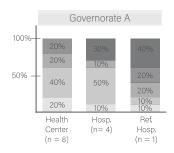


A more detailed overview of availability of individual services is shown as heat maps. Each cell indicates the number of health facilities providing a given service in relation to the catchment population. It should be noted that different catchment areas were used for referral and specialized health 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.

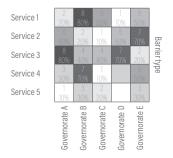
### Main barriers impeding availability impeding service availability

#### 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.

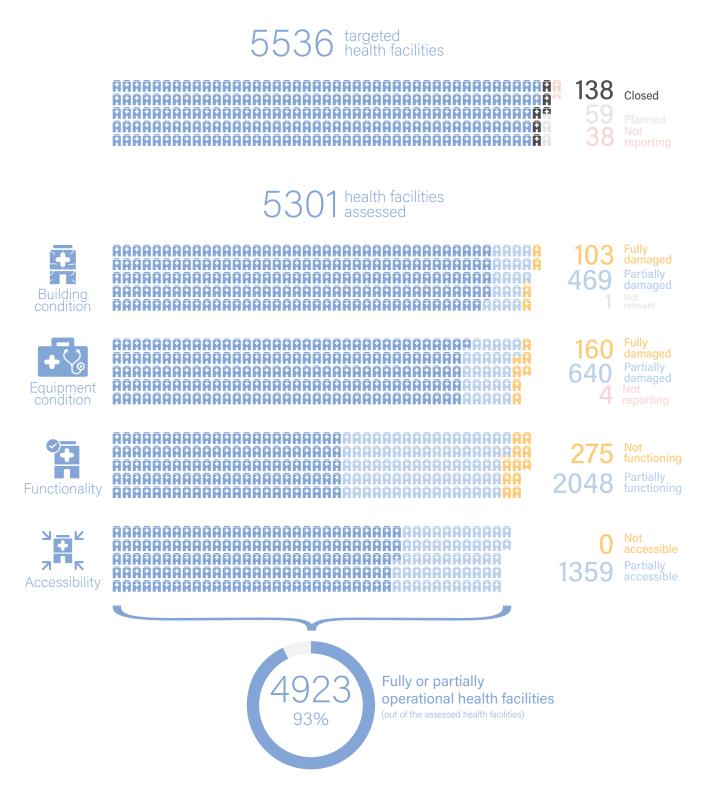
#### Heat map



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

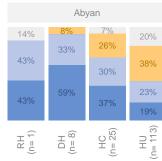


### **AVAILABILITY OF SERVICE PACKAGE AND MAIN BARRIERS**

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

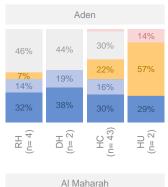


#### Package coverage by governorate and health facility type<sup>6</sup>





Ad Dali



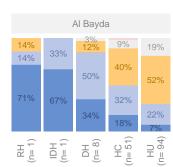
30%

HU (n= 40)

14%

38%

HU (n= 250)



Al Mahwit

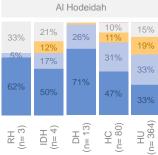
11%

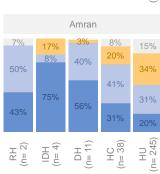
18%

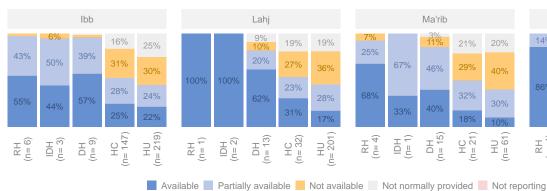
Available

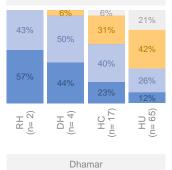
Not available Not normally provided Not reporting

Partially available











Lahj

DH (n= 13)

RH (n= 1)

IDH(n=2)



19%

НС ± 32)

ШЦ

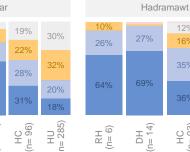
19%

36%

28%

HU 201)

Ľ



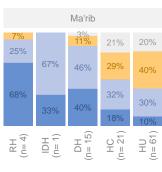
RH(n= 2)

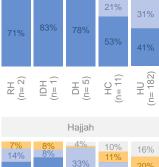
DH (n= 3)

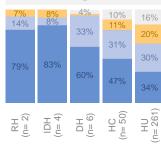
HC (n= 9)

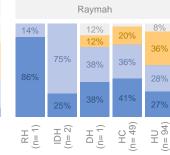
35%

HC (n= 93)









<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

Referral hospital (n= 50)	10%	21%	2	26%	13%		30%		
Inter-district hospital (n= 23)	17%	21%		22%	16%		24%		
District hospital (n= 166)	18%	24%	, D	26%	26%		11%		22%
Health center (n= 1170)	16%	27%	þ	23%	23%		3% 1		22%
Health unit (n= 3283)	18%	28	%	219	%	10%	23%		

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



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

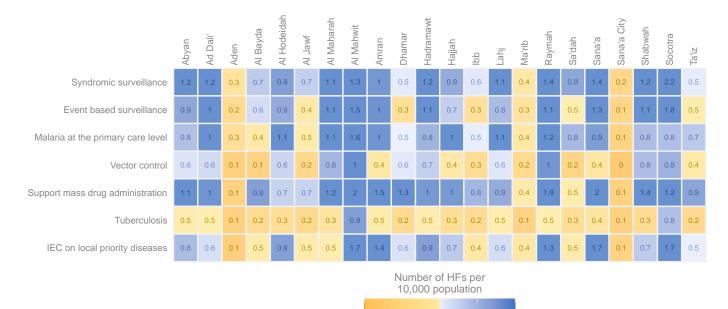
A marca n	Dhomor	Ladromout	Llaiiah
Amran	Dhamar	Hadramawt	Hajjah
39% 36% 27% 22% 20% 5% 14% 9%	31%     14%     15%     20%       13%     12%     9%	34% 23% 28% 26%	22%     19%     18%     19%       22%     16%     14%
17% 14% 23% 22% 23%	31% 30% 30% 23%	13%     17%     15%       22%     17%     15%     14%	22% 22% 26% 27%
<b>22% 14% 30% 33% 36%</b>	24% 33%	15%     14%       22%     26%     19%     22%	22% 30%
22%     29%       14%     10%	38% 34% 35% 19% 9% 15%	15% 21% 21% 23%	33% 27% 31% 30% <b>8%</b> 10%
	RH (n= 13) DH (n= 70) HC (n= 574) (n= 1913)	RH (n= 41) DH (n= 87) (n= 880) HU (n= 3150)	RH (n= 3) (n= 9) (n= 9) (n= 37) (n= 37) (n= 300) HU (n= 1799)
		i) i) u)	
Ibb	Lahj	Ma'rib	Raymah
31%     16%     16%     15%     15%       12%     11%     10%     8%	27% 28% 26%	24% 22% 23% 25% 26%	33% 23% <sub>38%</sub> 25% 25%
8%     36%     29%     23%     20%	5%     7%       23%     21%     20%	12%     11%     11%     10%     10%       28%     22%     27%     28%     19%	14%     7%     6%       33%     23%     12%     21%     20%
<b>33%</b> 29% 36% 39%	19% 19% 22%	28%	33% 23% 28% 30%
17% 32%	28% 27% 24%	12%     21%     19%     24%       24%     17%     19%     21%	23%     50%       33%     18%       18%     18%
4%	(1) (1) (09)		33) 33) 33)
RH (n= 36) IDH (n= 25) n CH (n= 25) (n= 25) (n= 13) (n= 1181) (n= 1507)	DH (n= 74) (n= 231) (n= 1809)	RH (n= 25) IDH (n= 9) DH (n= 175) HC (n= 227) HU (n= 685)	RH (n= 3) (n= 22) (n= 22) (n= 22) (n= 22) (n= 330) (n= 930)
Sa'dah	Sana'a	Sana'a City	Shabwah
20% 22% 22%	20% 10% 12% 8% 6%	20%	20% 17% 19%
20% 11% 20% 13%	40 %	11%	33% 24% 14%
25% 22%	20% 100%	13%     25%       35%     29%	40% 19% 20%
40%     22%     28%     26%     27%	<b>13%</b> 30% 38% 40%	<b>33%</b> 20% 25%	13% 10% 20%
20% 11% 14% 10% 16%	13% 18% 13% 18%	<b>20%</b> 15% 19% <b>25%</b>	24% 20% 21%
RH (n= 5) (n= 9) (n= 36) (n= 222) HU (n= 1205)	RH (n= 15) (n= 11) (n= 40) (n= 40) (n= 660) HU (n= 1328)	RH (n= 15) (n= 20) HC (n= 409) (n= 4)	RH (n= 5) (n= 6) (n= 6) DH (n= 79) HC (n= 150) (n= 888)
Socotra	Ta'iz		
20% 33% 32% 30%	15%     23%     24%       34%     10%     200     200		
40% <mark>4% 6% 15%</mark> 25% 26% 24%	10%     9%     8%       25%     23%     17%		
12% 14% 11%	<b>24%</b> 30% 29% 28%		
40% 25% 23% 22%	19%     20%     16%     23%		
RH (n= 5) (n= 24) (n= 66) (n= 285)	RH = 68) = 150) = 150) = 150) = 1584) : 2638)		
RH (n= 5) (n= 24) (n= 66) (n= 66) (n= 285	RH (n= 68) DH (n= 150) HC (n= 1684) (n= 2638)		
Lack of staff	ack of training Lack of medical supplies	Lack of medical equipment	of financial resources

#### 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>



0

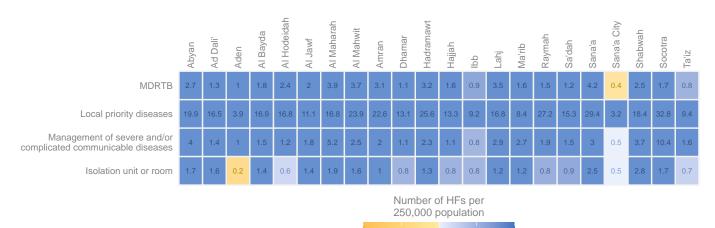
0.25

0.5

0.75

>=1

#### Number of health facilities providing specialized services per 250,000 population<sup>7</sup>



0

0.25

0.5

0.75

>=1

<sup>&</sup>lt;sup>7</sup> Sphere minimum standard: 1 HF per 10,000 population and 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	1			A	d Dal	i'				Aden				A	l Bayo	da			ALF	lodei	dah	
Syndromic surveillance	42	41	13	8	58	38	94	17	19	89	4	1	3	1	3	69	78	23	33	38	49	153	29	36	47
	64%	62%	20%	12%	88%	32%	79%	14%	16%	75%	100%	25%	75%	25%	75%	63%	72%	21%	30%	35%	28%	86%	16%	20%	27%
	59	44	17	11	82	27	116	10	26	122	10	8	5	6	5	61	82	22	26	36	52	168	26	33	53
Event-based surveillance	65%	48%	19%	12%	90%	19%	81%	7%	18%	85%	77%	62%	38%	46%	38%	57%	77%	21%	24%	34%	26%	83%	13%	16%	26%
Malaria at the primary	61	31	74	24	75	48	101	122	27	98	17	9	16	3	7	63	68	94	37	51	38	58	178	25	60
care level	56%	28%	68%	22%	69%	30%	63%	76%	17%	61%	81%	43%	76%	14%	33%	50%	54%	75%	29%	40%	18%	28%	86%	12%	29%
Vector control	17	24	27	33	87	20	43	73	66	159	20	3	5	11	18	41	33	59	69	75	67	103	125	121	166
	18%	25%	28%	35%	92%	11%	24%	41%	37%	89%	83%	12%	21%	46%	75%	34%	27%	49%	57%	62%	21%	33%	40%	38%	53%
Support mass drug	27	17	19	17	59	21	55	54	44	121	17	7	4	9	16	42	34	31	27	46	84	109	74	63	111
administration	44%	28%	31%	28%	97%	16%	41%	40%	33%	90%	85%	35%	20%	45%	80%	48%	39%	36%	31%	53%	35%	45%	31%	26%	46%
Tuberculosis	76	48	71	22	73	64	115	116	38	86	23	13	18	3	11	71	59	80	34	39	79	176	171	25	41
	68%	43%	64%	20%	66%	39%	70%	70%	23%	52%	92%	52%	72%	12%	44%	62%	52%	70%	30%	34%	33%	73%	71%	10%	17%
IEC on local priority diseases	23	33	34	11	61	30	97	41	38	121	21	7	5	11	20	46	71	53	29	56	40	97	109	32	82
	32%	46%	47%	15%	85%	20%	65%	27%	25%	81%	84%	28%	20%	44%	80%	40%	61%	46%	25%	48%	20%	47%	53%	16%	40%
		A	Al Jaw	ſf			AH	Vlaha	rah			AI	Mah	wit			1	Amrai	n			D	hama	ar	
Syndromic surveillance	17 36%	40 85%	6 13%	2 4%	16 34%	27 71%	13 34%	5 13%	16 42%	36 95%	8 8%	92 93%	7 7%	2 2%	16 16%	47 27%	157 89%	25 14%	26 15%	73 41%	56 25%	174	44 19%	23 10%	71 31%
Event-based surveillance	24	50	11	6	25	25	17	5	9	30	13	91	11	4	19	32	154	20	11	76	38	77% 126	19	39	60
Malaria at the primary	40%	83%	18%	10%	42%	64%	44%	13%	23%	77%	13%	89%	11%	4%	19%	17%	84%	11%	6%	42%	22%	73%	11%	23%	35%
	25	29	51	4	12	33	10	19	14	43	13	54	75	2	8	58	114	161	35	54	63	113	174	40	89
care level	42%	49%	86%	7%	20%	73%	22%	42%	31%	96%	16%	66%	91%	2%	10%	29%	57%	80%	17%	27%	25%	45%	69%	16%	35%
	16	34	31	31	38	23	9	18	29	48	8	30	54	32	86	31	104	120	94	133	36	69	89	75	92
Vector control	24%	52%	47%	47%	58%	47%	18%	37%	59%	98%	6%	23%	41%	24%	66%	14%	46%	53%	41%	58%	19%	37%	47%	40%	49%
Support mass drug	19	40	26	10	29	29	7	11	16	44	11	19	26	1	12	24	91	59	32	87	37	42	35	22	45
administration	34%	71%	46%	18%	52%	66%	16%	25%	36%	100%	25%	43%	59%	2%	27%	16%	59%	39%	21%	57%	38%	43%	36%	22%	46%
Tuberculosis	27	38	50	4	15	37	13	27	15	47	21	93	71	22	5	60	131	122	35	46	56	144	147	29	48
	45%	63%	83%	7%	25%	74%	26%	54%	30%	94%	17%	76%	58%	18%	4%	34%	74%	69%	20%	26%	26%	66%	67%	13%	22%
IEC on local priority	13	49	25	8	39	30	15	14	2	34	13	60	28	7	21	44	145	65	24	55	63	185	116	20	73
diseases	20%	75%	38%	12%	60%	68%	34%	32%	5%	77%	17%	77%	36%	9%	27%	23%	75%	34%	12%	28%	24%	71%	45%	8%	28%
			drama					Hajjah					lbb					Lahj					Ma'rib		
	125	150	44	70	139	31	89	24	20	31	70	205	17	29	48	77	90	19	20	75	27	43	20	10	32
Syndromic surveillance	59%	71%	21%	33%	66%	28%	81%	22%	18%	28%	31%	90%	7%	13%	21%	55%	64%	14%	14%	54%	47%	74%	34%	17%	55%
Event-based surveillance	126	128	45	72	162	22	114	36	30	46	50	192	14	31	39	78	106	32	23	76	21	41	20	9	36
	60%	61%	21%	34%	77%	15%	79%	25%	21%	32%	24%	91%	7%	15%	18%	49%	67%	20%	14%	48%	36%	71%	34%	16%	62%
Malaria at the primary	163	172	141	103	157	18	47	108	23	38	98	143	199	43	34	92	64	125	28	59	37	35	51	15	40
care level	58%	62%	51%	37%	56%	14%	38%	86%	18%	30%	39%	57%	79%	17%	14%	51%	36%	69%	16%	33%	51%	49%	71%	21%	56%
Vector control	112	73	101	154	211	28	77	127	131	128	42	95	83	73	115	58	17	70	43	121	23	18	50	43	59
	44%	28%	39%	60%	82%	12%	33%	55%	56%	55%	22%	49%	43%	38%	60%	39%	11%	47%	29%	81%	28%	22%	62%	53%	73%
Support mass drug administration	110	61	84	101	145	28	63	38	30	53	28	67	26	23	65	45	19	13	7	70	32	19	25	16	38
Tuberculosis	57%	32%	44%	53%	76%	25%	57%	35%	27%	48%	24%	57%	22%	19%	55%	48%	20%	14%	8%	75%	55%	33%	43%	28%	66%
	164	188	126	76	126	48	146	147	44	35	127	190	168	27	63	123	117	123	22	63	45	29	41	20	41
IEC on local priority	63%	72%	48%	29%	48%	24%	74%	75%	22%	18%	50%	75%	66%	11%	25%	63%	60%	63%	11%	32%	68%	44%	62%	30%	62%
	123	108	70	84	158	29	115	101	37	72	46	153	84	31	65	49	46	43	11	87	28	51	32	13	43
diseases	58%	51%	33%	39%	74%	16%	62%	55%	20%	39%	21%	70%	38%	14%	30%	40%	37%	35%	9%	71%	38%	70%	44%	18%	59%
		R	ayma	ıh			0	Sa'dal	١			5	Sana'a	а			Sa	na'a (	City			Sł	nabwa	ah	
Syndromic surveillance	29	66	15	8	46	34	65	13	16	40	15	116	13	9	33	7	10	3	4	7	42	54	29	26	50
	39%	88%	20%	11%	61%	42%	81%	16%	20%	50%	12%	96%	11%	7%	27%	47%	67%	20%	27%	47%	42%	53%	29%	26%	50%
Event-based surveillance	45	77	8	5	39	32	73	19	19	32	61	160	16	22	62	5	12	4	5	11	36	44	7	17	35
	48%	83%	9%	5%	42%	32%	73%	19%	19%	32%	33%	86%	9%	12%	33%	26%	63%	21%	26%	58%	42%	52%	8%	20%	41%
Malaria at the primary	39	61	64	17	52	45	59	106	37	55	80	108	179	19	21	10	9	28	6	10	46	29	66	42	36
care level	40%	63%	66%	18%	54%	35%	46%	83%	29%	43%	38%	52%	86%	9%	10%	32%	29%	90%	19%	32%	47%	30%	68%	43%	37%
Vector control	33 28%	44	60	35	95 82%	27 24%	41	60 53%	60 53%	75 66%	19 12%	104	85 52%	57 35%	37 23%	8 21%	14 37%	23	16 42%	17 45%	14 20%	10 14%	31 44%	42 60%	52 74%
Support mass drug administration	16	16	36 62%	2 3%	36 62%	35 36%	46	30 31%	21 22%	68 71%	20 21%	70	35 37%	6 6%	23% 25 27%	8 33%	9 38%	12 50%	42% 5 21%	45% 14 58%	20% 14 32%	14% 8 18%	44% 11 25%	13 30%	29 66%
Tuberculosis	52	44	72	16	23	31	52	62	25	28	82	106	139	16	12	23	15	44	8	17	58	33	65	23	35
IEC on local priority	57%	48%	79%	18%	25%	39%	65%	78%	31%	35%	47%	61%	79%	9%	7%	43%	28%	83%	15%	32%	61%	35%	68%	24%	37%
	38	87	17	3	46	21	62	38	26	30	50	134	72	11	48	19	23	18	9	20	22	31	17	11	39
diseases			17%	3%	45%		66%		28%			84%		7%	30%	49%		46%			32%			16%	
% of H	lFs r	epor	ting a	a bar	rier			-	Гуре	of ba	arrier														

1% 25% 50% 75% 100%

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.)

	Socotra					Ta'iz					
Syndromic surveillance	7 58%	5 42%	10 83%	2 17%	11 92%	153 44%	262 75%	31 9%	32 9%	146 42%	
Event-based surveillance	13 93%	1 7%	13 93%	1 7%	14 100%	127 33%	241 63%	25 7%	52 14%	174 46%	
Malaria at the primary care level	14 64%	7 32%	21 95%	5 23%	19 86%	161 42%	169 44%	274 72%	60 16%	141 37%	
Vector control	14 61%	10 43%	10 43%	13 57%	21 91%	76 22%	122 35%	170 48%	114 32%	193 55%	
Support mass drug administration	13 65%	7 35%	10 50%	11 55%	19 95%	80 41%	77 39%	45 23%	34 17%	130 67%	
Tuberculosis	16 70%	8 35%	20 87%	6 26%	17 74%	192 52%	203 55%	263 71%	47 13%	137 37%	
IEC on local priority diseases	8 53%	7 47%	4 27%	14 93%	12 80%	106 32%	186 56%	72 22%	35 10%	160 48%	

% of HFs reporting a barrier 1% 25% 50% 75% 100% Type of barrier Lack of medical equipment Lack of staff Lack of training Lack of medical supplies Lack of financial resources

#### Main barriers impeding availability of specialized services by governorate

	Abyan	Ad Dali'	Aden	Al Bayda	Al Hodeidah			
MDRTB	12 4 13 4 11	10 23 22 8 19	7 3 3 1 7	<b>13</b> 12 <b>23 13 11</b>	9 34 37 2 21			
Local priority diagona	71%     24%     76%     24%     65%       61     49     66     12     78	31%     72%     69%     25%     59%       32     102     104     33     97	100%     43%     43%     14%     100%       17     11     17     7     5	42%     39%     74%     42%     35%       61     58     76     30     36	17%     65%     71%     4%     40%       58     159     222     52     62			
Local priority diseases Management of severe and/or	60% 49% 65% 12% 77%	21%     65%     67%     21%     62%       7     9     8     4     12	85%     55%     85%     35%     25%       2     2     3     2     3	56%     54%     70%     28%     33%       7     6     12     2     2	20%     55%     77%     18%     22%       5     5     7     2     2			
complicated communicable diseases	<b>59%</b> 35% <b>82% 29% 53%</b>	<b>47%</b> 60% <b>53% 27% 80%</b>	<b>40%</b> 40% <b>60%</b> 40% 60%	<b>58%</b> 50% <b>100% 17% 17%</b>	<b>45% 64% 18% 18%</b>			
Isolation unit or room	9     4     8     6     10       69%     31%     62%     46%     77%	3     5     8     5     10       27%     45%     73%     45%     91%	3     1     3       100%     33%     100%	3     2     5     6     6       30%     20%     50%     60%     60%	2     4     1     7     6       22%     44%     11%     78%     67%			
	Al Jawf	Al Maharah	Al Mahwit	Amran	Dhamar			
MDRTB	6 11 8 3 5	7 2 6 1 8	6 16 15 5 1	13 42 42 6 9	13 39 40 9 15			
Local priority diseases	38%     69%     50%     19%     31%       23     42     38     11     26	78%     22%     67%     11%     89%       33     17     17     3     28	27%     73%     68%     23%     5%       19     76     74     15     13	23%     74%     74%     11%     16%       58     164     153     28     56	23%     68%     70%     16%     26%       99     128     178     29     66			
Management of severe and/or	36%     66%     59%     17%     41%       4     4     6     2     5	72%     37%     37%     7%     61%       2     1     1     1	18%     71%     69%     14%     12%       6     7     10     2     2	25%     71%     67%     12%     24%       13     13     19     2     6	40%     52%     72%     12%     27%       5     6     12     3     4			
complicated communicable diseases	<b>57%</b> 57% 86% 29% 71%	100% 50% 50% <b>50%</b>	<b>50% 58% 83% 17% 17%</b>	<b>59% 59% 86% 9% 27%</b>	38% 46% 92% 23% 31%			
Isolation unit or room	3     2     4     5     6       43%     29%     57%     71%     86%	3     1     2     1       75%     75%     25%     50%     25%	1     3     7     3     8       9%     27%     64%     27%     73%	7     9     6     5     8       44%     56%     38%     31%     50%	4     2     3     2     7       36%     18%     27%     18%     64%			
	Hadramawt	Hajjah	lbb	Lahj	Ma'rib			
MDRTB	25 23 22 10 20	16 46 44 11 20 250 700 700 470 200	12 23 29 9 14 2007 0407 7007 0407 0707	10 7 9 1 7 570 470 500 70 470	14 8 15 4 14			
Local priority diseases	66%     61%     58%     26%     53%       132     97     94     80     141	25%     73%     70%     17%     32%       37     131     160     49     47	32%     61%     76%     24%     37%       94     165     147     26     33	67%     47%     60%     7%     47%       61     69     95     9     49	67%     38%     71%     19%     67%       38     37     42     11     25			
Management of severe and/or	6 10 12 3 7	18%     64%     78%     24%     23%       4     5     7     4     2	39%     68%     60%     11%     14%       7     9     12     4     7	46%     52%     71%     7%     37%       11     5     9     1     9	56%     54%     62%     16%     37%       13     6     18     11     15			
complicated communicable diseases	43% 71% 86% 21% 50%	40% 50% 70% 40% 20%	41% 53% 71% 24% 41%	79%     36%     64%     7%     64%       9     4     5     5     8	57%     26%     78%     48%     65%       100     7     100     0     100			
Isolation unit or room	10     6     8     7     14       62%     38%     50%     44%     88%	2     4     6     5     7       18%     36%     55%     45%     64%	6     11     10     7     7       38%     69%     62%     44%     44%	9     4     5     5     8       75%     33%     42%     42%     67%	10     7     12     6     12       56%     39%     67%     33%     67%			
	Raymah	Sa'dah	Sana'a	Sana'a City	Shabwah			
MDRTB	6     10     5     6     5       43%     71%     36%     43%     36%	12     18     19     8     10       43%     64%     68%     29%     36%	19     29     39     5     1       44%     67%     91%     12%     2%	6     1     9     1     5       60%     10%     90%     10%     50%	16     7     12     9     6       70%     30%     52%     39%     26%			
Local priority diseases	<b>47</b> 62 50 7 <b>27</b>	24     76     69     22     28	<b>78 156 180 20 32</b>	23     17     30     7     21	48 47 43 21 29			
Management of severe and/or	51% 67% 54% 8% 29% 5 5 6 1 4	23%     74%     67%     21%     27%       1     3     1     2     3	35%     71%     81%     9%     14%       6     5     8     3     2	52%     39%     68%     16%     48%       5     6     2     5	56%     55%     51%     25%     34%       7     2     9     7     2			
complicated communicable diseases	50% 50% 60% 10% 40%	20% 60% 20% 40% 60%	55%     45%     73%     27%     18%       3     4     8     8     7	62%     75%     25%     62%	58%     17%     75%     58%     17%			
Isolation unit or room	5     4     1     2     5       56%     44%     11%     22%     56%	4     2     4     3       80%     40%     80%     60%	3     4     8     8     7       23%     31%     62%     62%     54%	2     1     5     3     5       29%     14%     71%     43%     71%	5     1     6     8     9       42%     8%     50%     67%     75%			
	Socotra	Ta'iz						
MDRTB	1     2     2     1       50%     100%     100%     50%	22     19     26     9     18       49%     42%     58%     20%     40%						
Local priority diseases	10 8 17 18	<b>155</b> 180 <b>154 49 137</b>						
Management of severe and/or	56% 44% 94% 100%   1 1 1	46%     53%     46%     14%     41%       17     18     24     12     11						
complicated communicable diseases		45%     47%     63%     32%     29%       12     10     10     14     20						
Isolation unit or room	3     3     3     3       100%     100%     100%	12     10     10     14     20       41%     34%     34%     48%     69%						
% of HFs reporting a barrier Type of barrier								

■ 1% ■ 25% ■ 50% ■ 75% ■ 100%

Lack of staff Lack of training

Lack of medical supplies

Lack of medical equipment Lack of financial resources

# Part II: IN-DEPTH ANALYSIS BY HEALTH SERVICE



Partially available Not available

# 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.

Available



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.

### 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

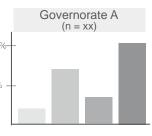


Each donut chart indicates the percentage of health facilities having reported a given reason. The total number of health facilities reporting at least one barrier

is shown below the chart header.

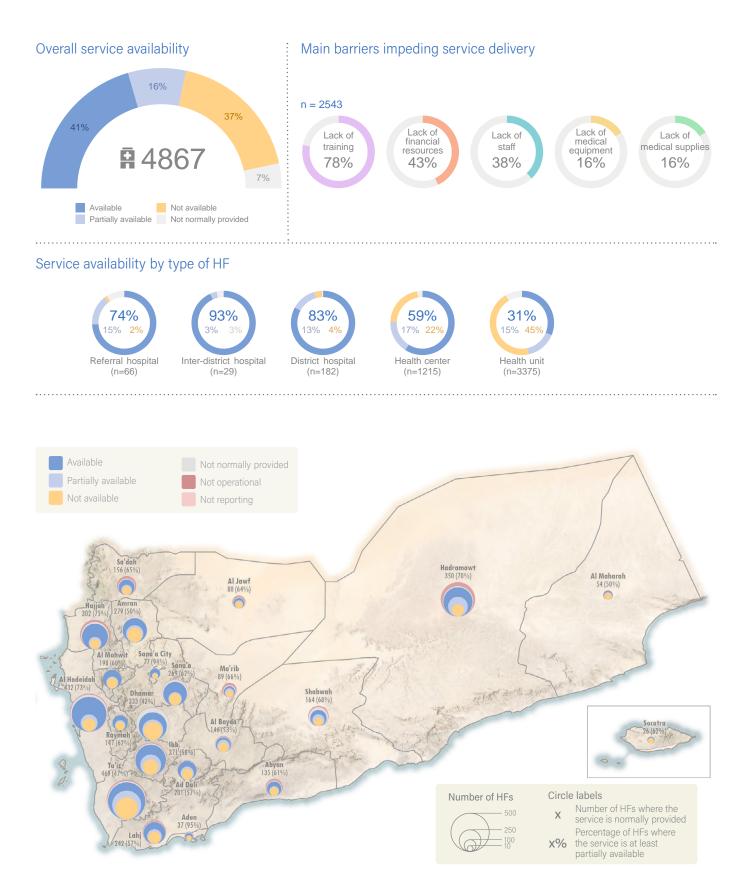
#### Bar charts

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

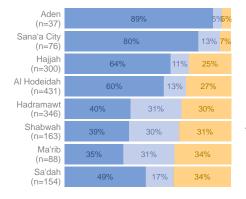


**Important**: The denominators of barrier charts exclude health facilities where the service was available up to standard. It should further be noted that health facilities could report up to three barriers for each service. Hence, the sum of all barriers may exceed 100%.

### Syndromic surveillance



#### Service availability by governorate\*



Al Jawf (n=80)	41%	22%	36%		
Sana'a (n=269)	55%	7%	38%		
Raymah (n=147)	49%	13%	38%		
Socotra (n=26)	58%		38%		
Abyan (n=135)	51%	10%	39%		
Al Mahwit (n=197)	50%	10%	41%		
lbb (n=368)	39%	19%	42%		
Ad Dali' (n=201)	41%	16%	43%		

Availabl	e 📕 Part	ially ava	e 📕 Not available					
Lahj (n=241)	42%	)	14%	44%				
Al Bayda (n=146)	25%	27%	Ď	47%				
Al Maharah (n=54)	30%	20%	6	50%				
Amran (n=279)	37%	1:	3%	50%				
Ta'iz (n=469)	26%	21%		53%				
Dhamar (n=333)	32%	10%		58%				

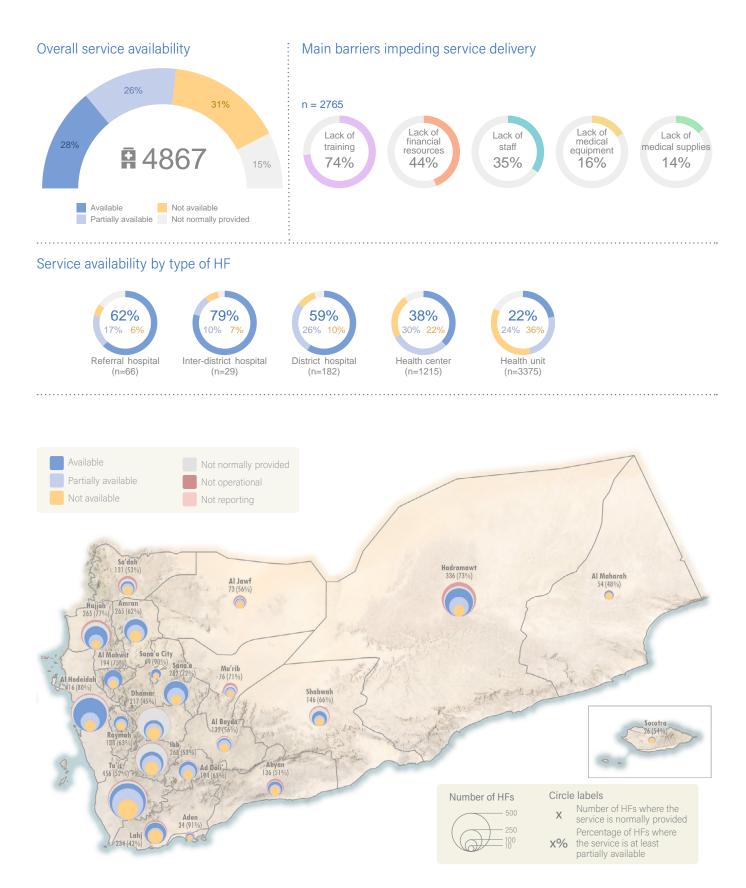
Not a



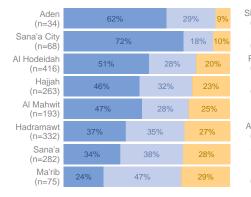


\* HFs with missing value or that reported "Not normally provided" are excluded.

### **EVENT-BASED SURVEILLANCE**



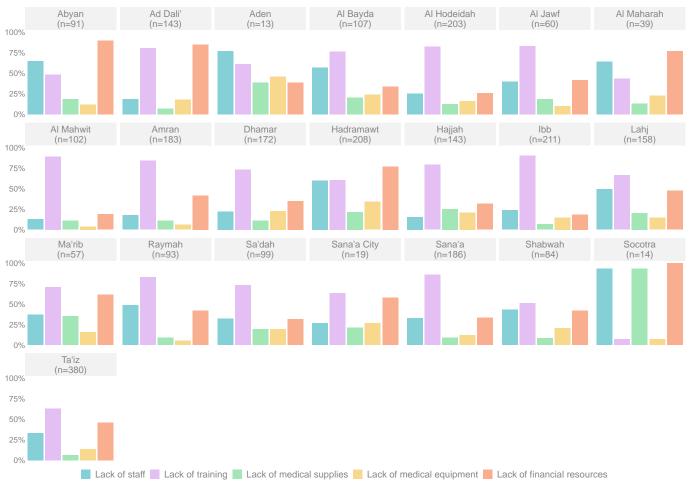
#### Service availability by governorate\*



Shabwah (n=145)	4	2%		24	1%	34%
Ad Dali' (n=194)	26%		;	39%		35%
Raymah (n=138)	339	6		30%		37%
Amran (n=265)	31%	6		31%		38%
Al Jawf (n=73)	18%		38%			44%
Al Bayda (n=132)	19%		37%			44%
Socotra (n=26)		46%		8%		46%
lbb (n=267)	21%		32%			47%

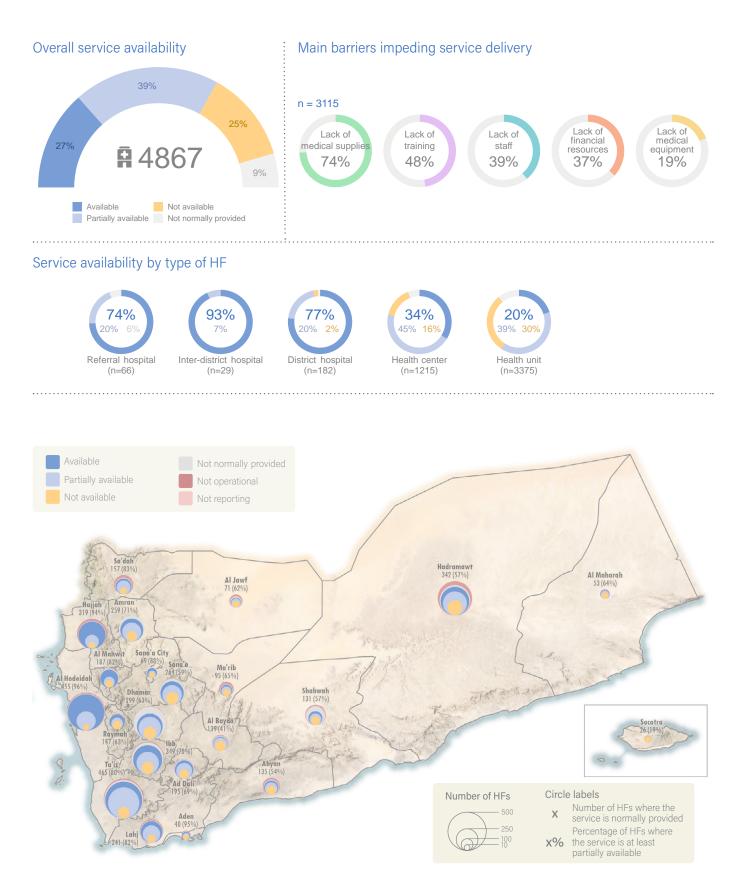
Available Partially available Not available									
Sa'dah (n=130)	24%		29%		47%				
Ta'iz (n=456)	17%	3	5%		48%				
Abyan (n=136)	33%	1	18%		49%				
Al Maharah (n=54)	28%		20%		52%				
Dhamar (n=217)	21%	24	1%		55%				
Lahj (n=233)	32%		11%		57%				

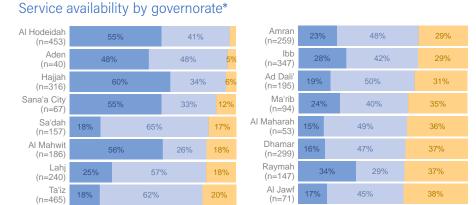
#### Main barriers impeding service delivery by governorate



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

### MALARIA AT THE PRIMARY CARE LEVEL





#### 📕 Available 📕 Partially available 📒 Not available Sana'a (n=264) 21% 38% 41% Shabwah 43% 26% (n=131) Hadramawt 38% 43% 19% (n=337) Abyan 19% 35% 46% (n=135) Al Bayda (n=139) 32% 9% 59%

15%

81%

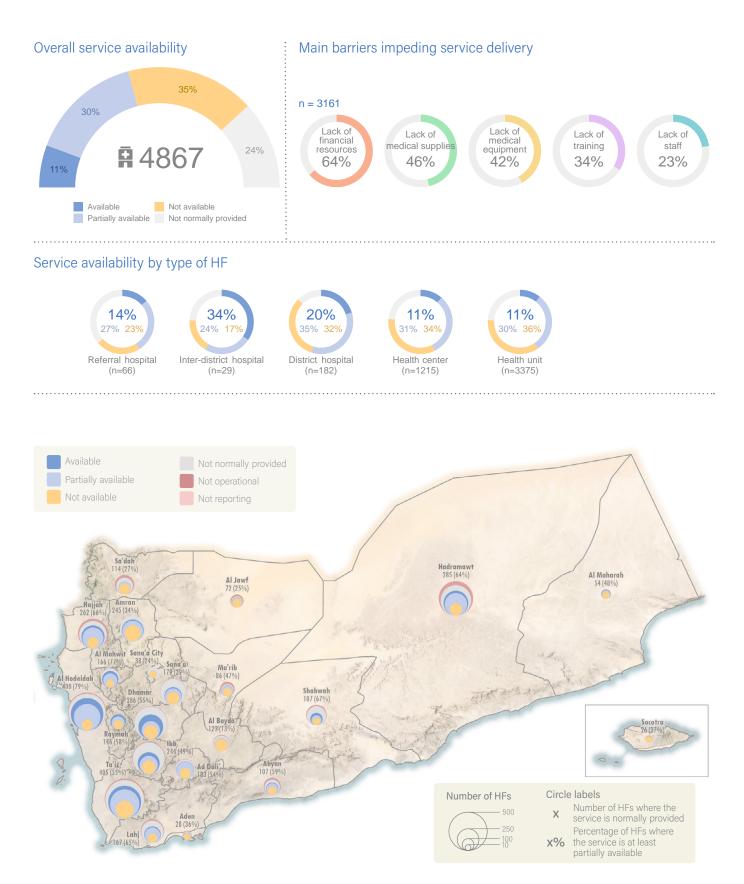
Socotra (n=26)

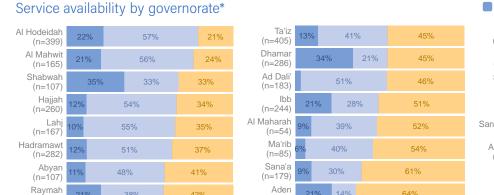
#### Main barriers impeding service delivery by governorate



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

### VECTOR CONTROL





#### 📕 Available 📕 Partially available 📒 Not available Amran (n=245) 27% 66% Sa'dah 27% (n=114) Socotra **15%** 12% 73% (n=26) Al Jawf **8%** 17% (n=72) Sana'a City (n=38) 24% 76% Al Bayda (n=123) 11% 87%

Main barriers impeding service delivery by governorate

42%

21%

(n=146)

38%



14%

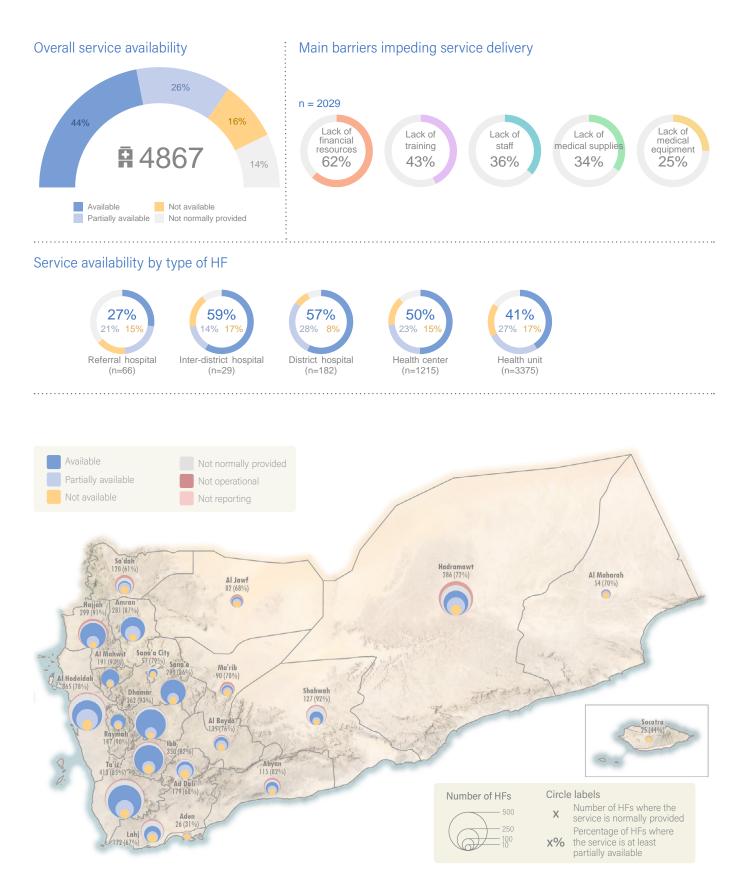
64%

21%

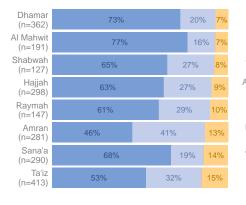
(n=28)

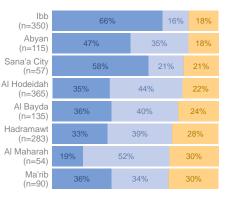
\* HFs with missing value or that reported "Not normally provided" are excluded.

### SUPPORT MASS DRUG ADMINISTRATION



#### Service availability by governorate\*

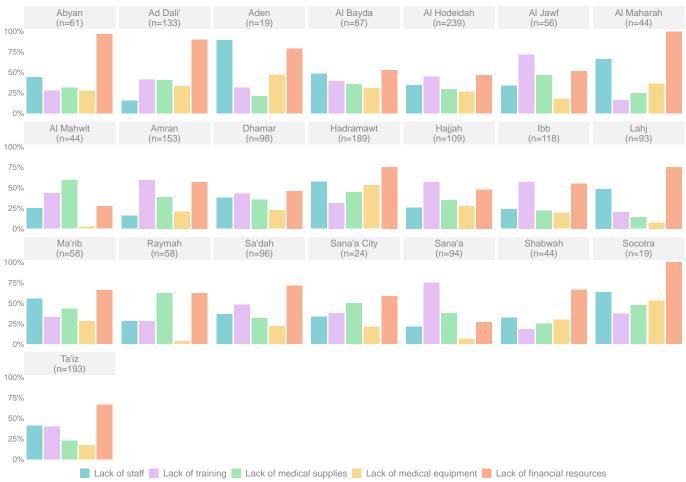




Al Jawf (n=82)	32%			37%		32%				
Ad Dali' (n=179)	26%		4	12%		32%				
Lahj (n=172)	4	6%		22%		33%				
Sa'dah (n=120)	20%		41%	, )		39%				
Socotra (n=25)	24%	2	20%		;	56%				
Aden (n=26)	27%		69%							

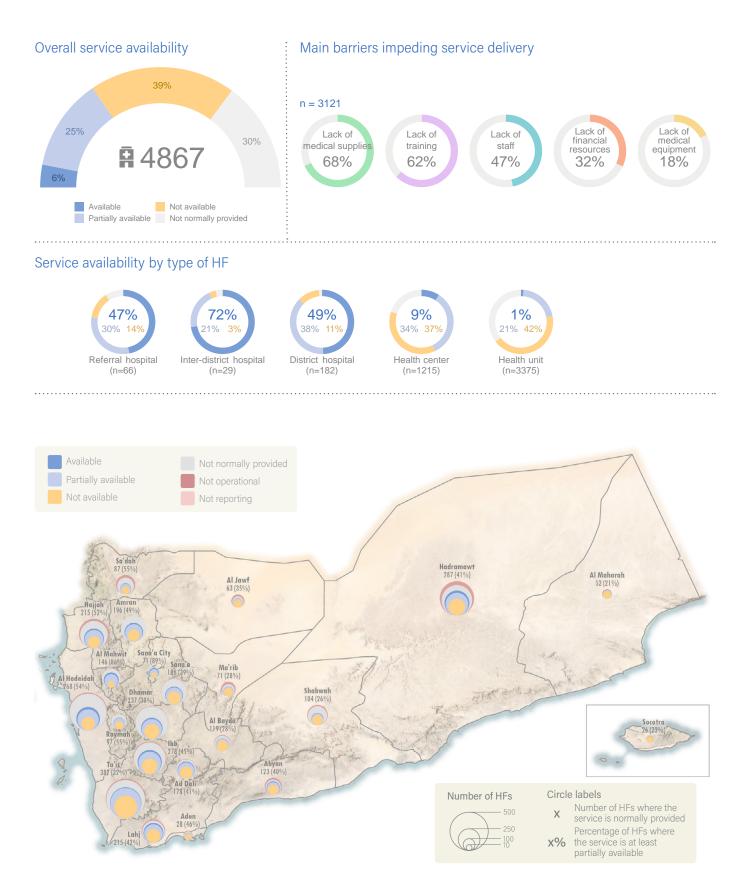
🗖 Availabla 📃 Partially availabla 📒 Not available

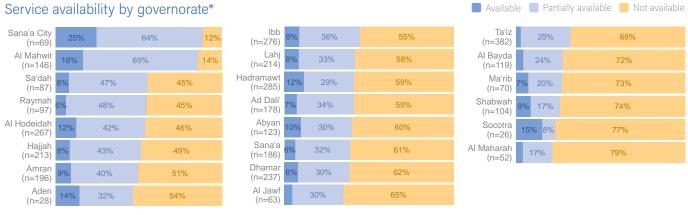




\* HFs with missing value or that reported "Not normally provided" are excluded.

### TUBERCULOSIS





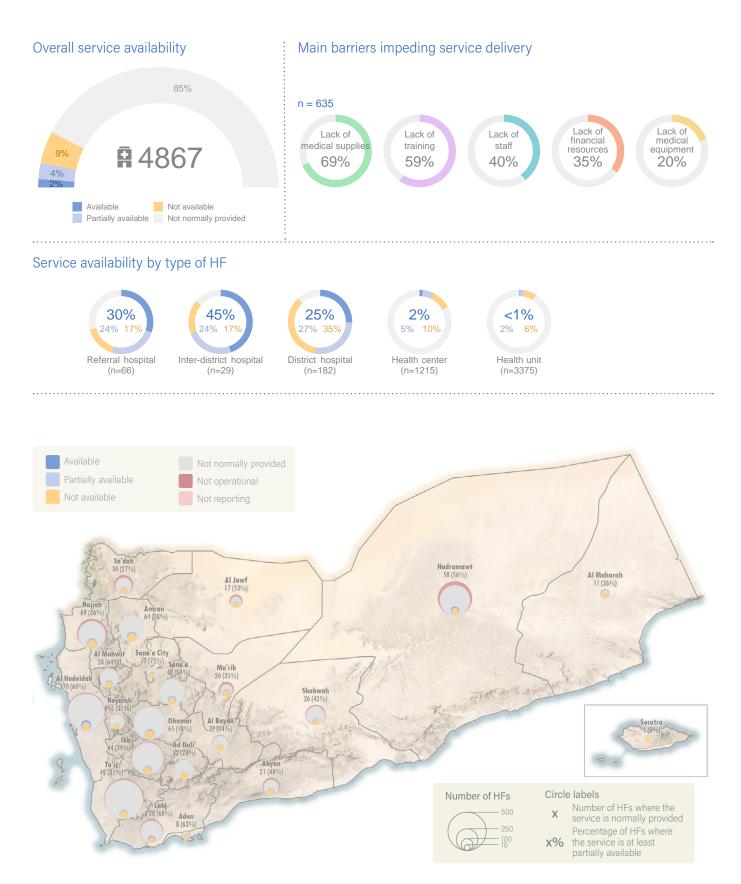
#### Service availability by governorate\*





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

### MULTIDRUG-RESISTANT TUBERCULOSIS

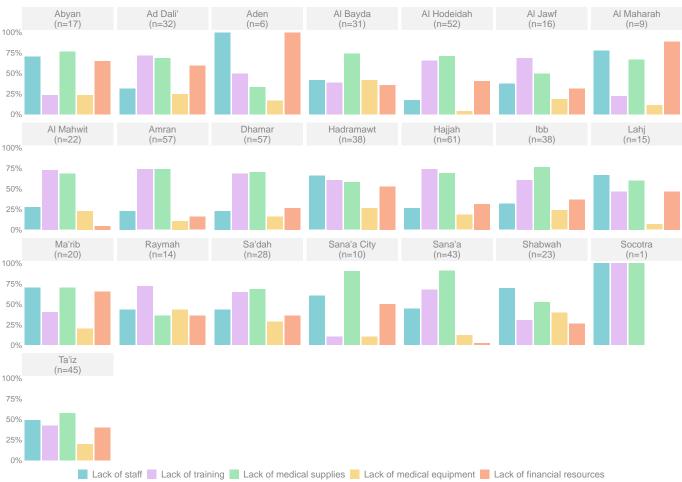


#### Sana'a City (n=12) Abyan (n=21) 17% 58% 19% 29% 52% 25% Sana'a (n=48) 10% Shabwah (n=26) 58% 31% 12% 31% 58% Amran (n=64) Lahj 46% 21% 11% 27% 62% 32% (n=28) lbb (n=43) Al Mahwit 21% 43% 26% 63% 36% 12% (n=28) Al Maharah (n=11) Aden 18% 18% 64% 25% 38% 38% (n=8) Hajjah (n=68) Al Hodeidah 25% 65% 35% 41% 10% (n=69) Ta'iz Hadramawt 27% 65% 24% 44% (n=49) (n=50) Al Bayda Al Jawf 31% 66% 47% 47% (n=17) (n=32)

#### 📕 Available 📕 Partially available 📒 Not available Ma'rib 20% 12% 68% (n=25) Raymah 19% 12% 69% (n=16) Ad Dali' 28% 72% (n=32) Sa'dah 20% 73% (n=30) Dhamar (n=65) 12% 6% 82% Socotra 100% (n=1)

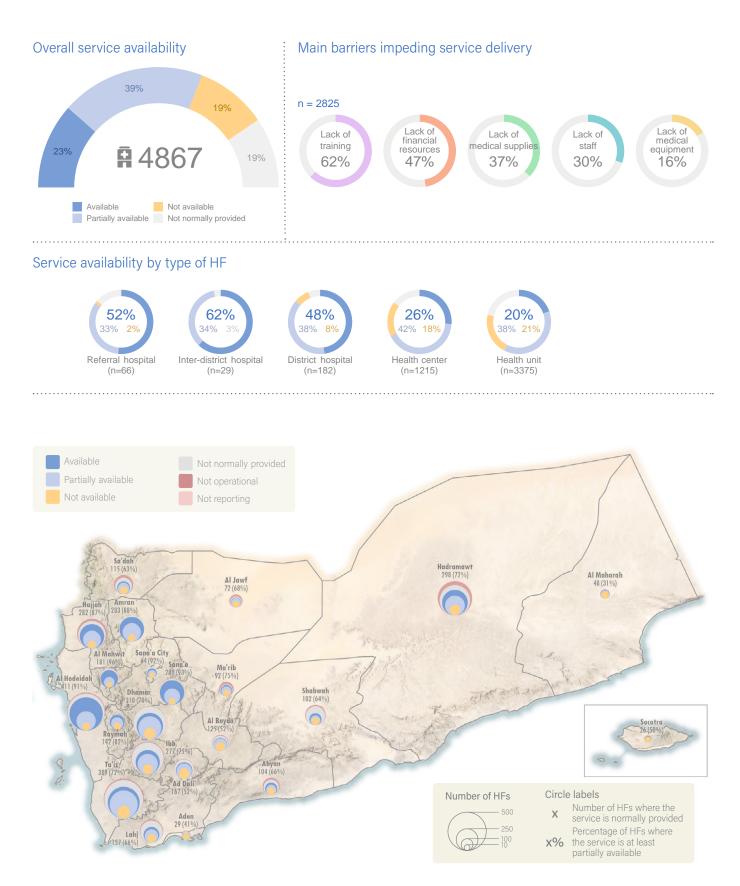
Main barriers impeding service delivery by governorate

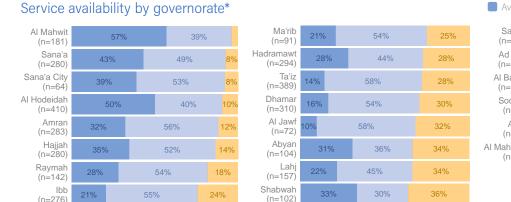
Service availability by governorate\*



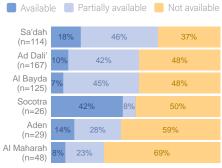
<sup>\*</sup> HFs with missing value or that reported "Not normally provided" are excluded.

### IEC ON LOCAL PRIORITY DISEASES





(n=102)



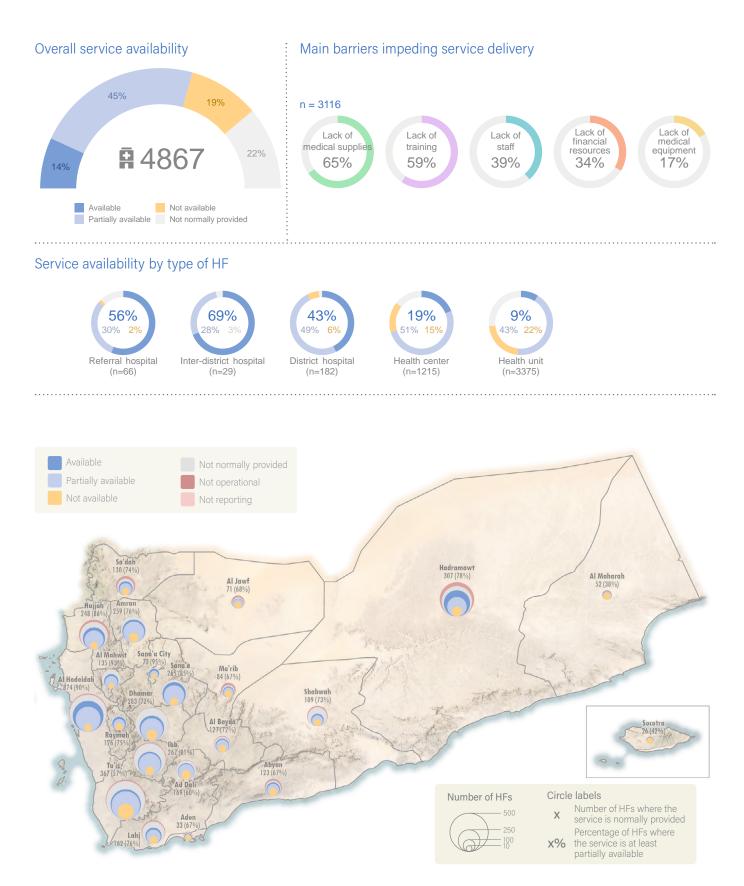
Main barriers impeding service delivery by governorate

(n=276)



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

### LOCAL PRIORITY DISEASES



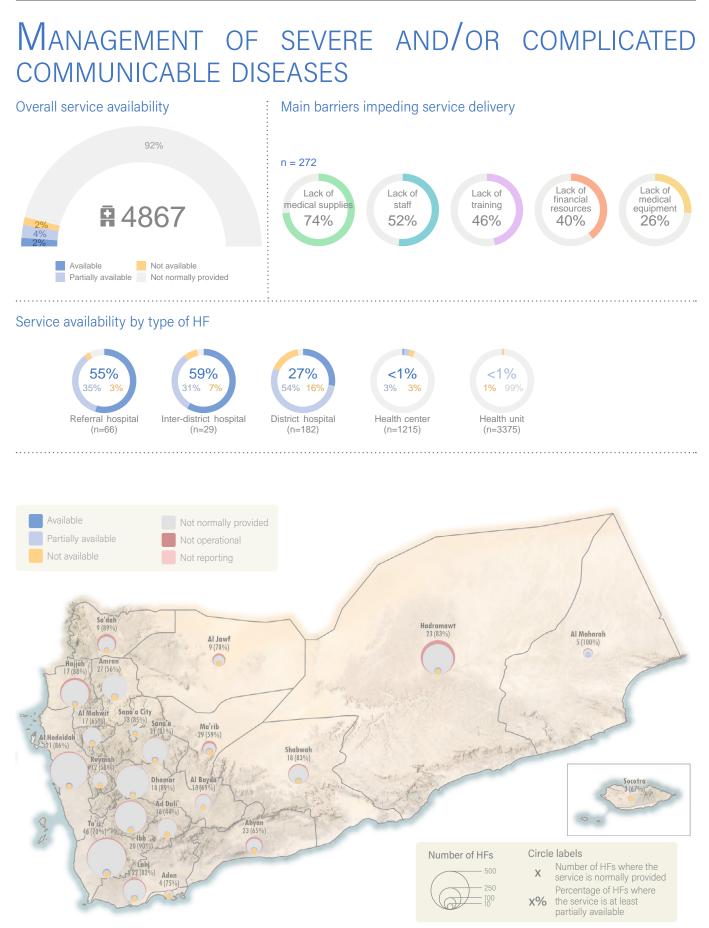
#### Service availability by governorate\* Sana'a City (n=71) Amran (n=259) 64% 41% 54% 12% 24% 6% Al Mahwit Raymah (n=126) 21% 48% 25% 7% (n=135) Al Hodeidah Sa'dah 20% 53% 26% 23% 67% 10% (n=129) (n=373) Hajjah Shabwah 68% 51% 27% 18% 14% (n=247) (n=109) Sana'a (n=265) Dhamar 13% 59% 28% 17% 68% 15% (n=283) Al Bayda (n=127) lbb 57% 71% 20% 28% (n=266) Al Jawf (n=71) 10% Hadramawt 46% 58% 32% (n=305) Lahj Aden 18% 58% 24% 39% 27% 33% (n=162) (n=33)



#### Main barriers impeding service delivery by governorate

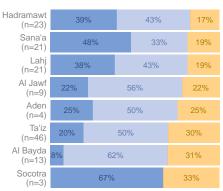


\* HFs with missing value or that reported "Not normally provided" are excluded.





Service availability by governorate\*



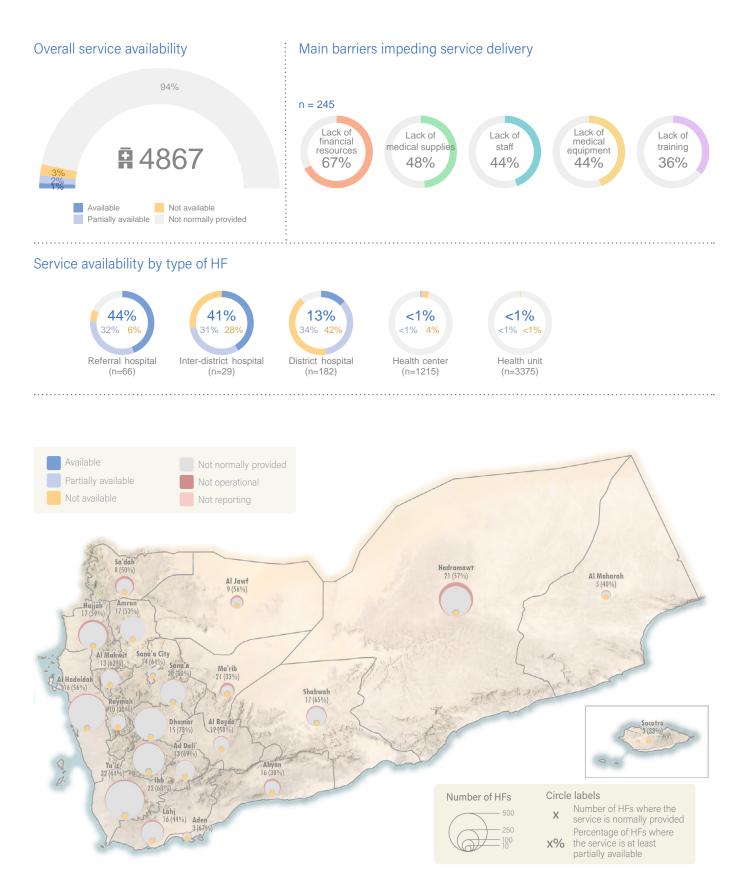
Available Partially available Not available							
Abyan (n=23)	26%		39%			35%	
Al Mahwit (n=17)	29%	, D	35%			35%	
Ma'rib (n=29)	21%		38%			41%	
Raymah (n=12)	17%	42%			42%		
Amran (n=27)	19%		37%			44%	
Ad Dali' (n=16)	12%	31%		56%			

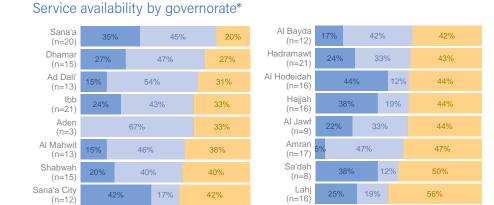
#### Main barriers impeding service delivery by governorate



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

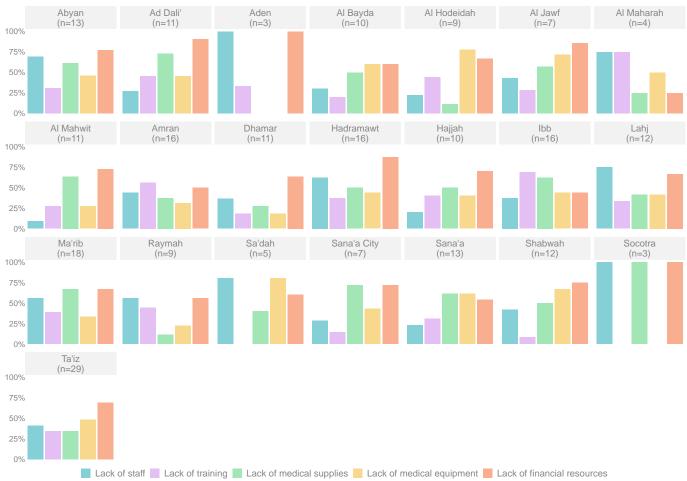
### SOLATION UNIT OR ROOM





#### 📕 Available 📕 Partially available 📒 Not available Ta'iz (n=32) 34% 56% Al Maharah 60% (n=5) Abyan 19% 19% 62% (n=16) Ma'rib 14% 19% 67% (n=21) Socotra (n=3) 33% 67% Raymah (n=10) 20% 70%

Main barriers impeding service delivery by governorate



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





## ANNEX I: DEFINITIONS OF ESSENTIAL SERVICES

Service	DEFINITION			EXPECTED SERVICE				
JERVICE	DEFINITION	RH	IDH	DH	HC	HU		
Syndromic surveillance	Regular reporting sentinel site for syndromic surveillance of local relevant diseases/conditions	Х	Х	Х	Х	Х		
Event-based surveillance	Immediate reporting of unexpected or unusual health events through an event-based surveillance system	Х	Х	Х	Х	Х		
Malaria at the primary care level	Diagnosis of suspected malaria cases with rapid diagnostic test (RDT) and treatment of positive cases, or detection and referral of suspected cases, and follow-up			Х	Х	Х		
VECTOR CONTROL	Support vector control interventions (distribution of impregnated bed nets, in/outdoor insecticide spraying, distribution of related IEC materials)				Х	Х		
Support mass drug admin- istration	Mobilize communities and support mass drug administration/treatment campaigns			Х	Х	Х		
Tuberculosis	Diagnosis and treatment of tuberculosis cases, or detection and referral of suspected cases, and follow-up			Х	Х	Х		
Multidrug-resistant tuber- culosis	Diagnosis, management, and follow-up of multi-drug-resistant TB pa- tients	Х						
IEC ON LOCAL PRIORITY DISEASES	Information, Education, and Communication on the prevention and self- care of local priority diseases, such as dengue, acute diarrhoea, others	Х	Х	Х	Х	Х		
Local priority diseases	Diagnosis and management of other locally relevant diseases: such as measles, viral hepatitis, diphtheria, pertussis, etc., with protocols available for identification, classification, stabilization and referral of severe cases	Х	Х	Х				
MANAGEMENT OF SEVERE AND/ OR COMPLICATED COMMUNICA- BLE DISEASES	For example: measles with pneumonia, cerebral malaria, etc.	Х	Х	Х				
ISOLATION UNIT OR ROOM	Isolation unit or room for patients with highly infectious diseases	Х	Х					

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
Нацан	2,428,326
BB	3,244,039
Lahj	1,129,754
Ma'rib	1,072,048
Rауман	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'ız	3,203,121
Total	31,888,698



