

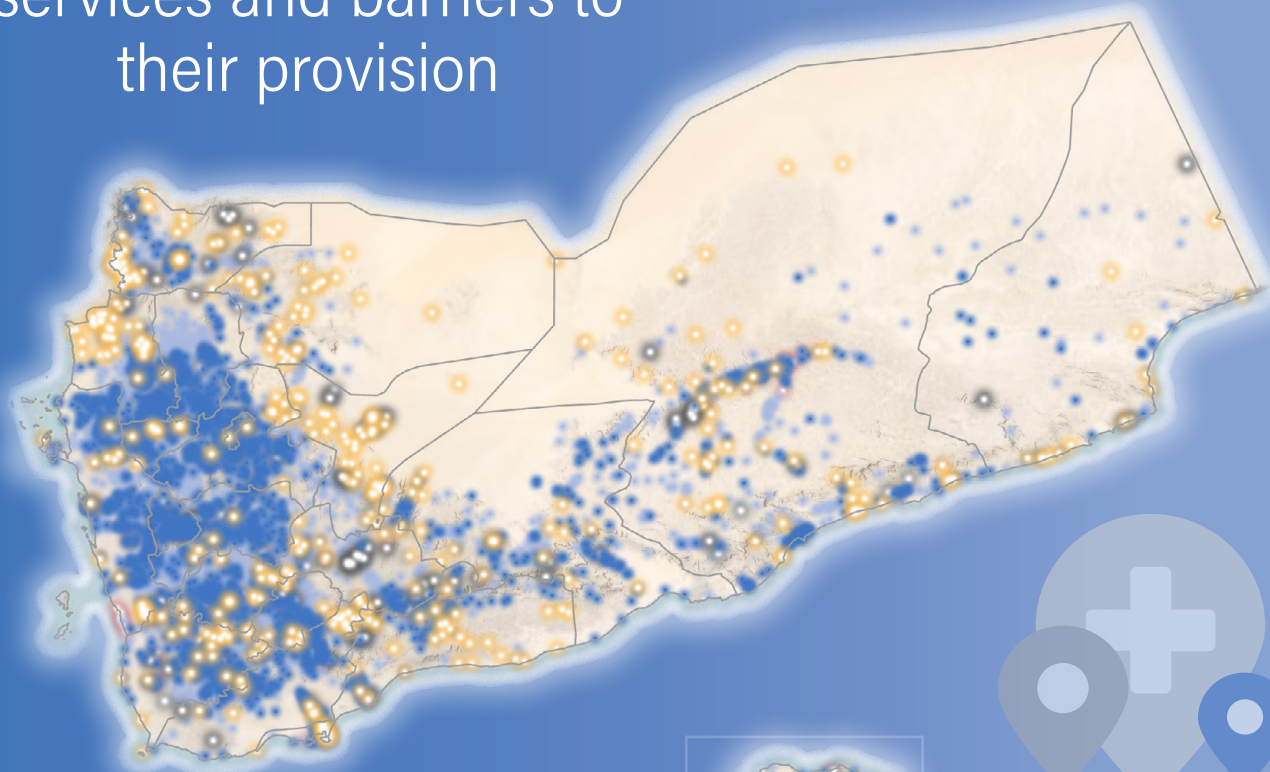
# HeRAMS Yemen

## Baseline report 2023



## COMMUNICABLE DISEASE SERVICES

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; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>).

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 (<http://www.wipo.int/amc/en/mediation/rules>).

**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
<b>Part I: Overview of the availability of communicable disease services .....</b>	<b>1</b>
How to read the charts .....	2
Overview of health facilities assessed .....	3
Availability of service package and main barriers.....	4
Service availability by catchment population .....	7
Main barriers impeding service delivery.....	8
<b>Part II: In-depth analysis by health service .....</b>	<b>10</b>
How to read the charts and the maps .....	11
Syndromic surveillance .....	12
Event-based surveillance.....	14
Malaria at the primary care level.....	16
Vector control.....	18
Support mass drug administration.....	20
Tuberculosis .....	22
Multidrug-resistant tuberculosis.....	24
IEC on local priority diseases .....	26
Local priority diseases .....	28
Management of severe and/or complicated communicable diseases.....	30
Isolation unit or room.....	32
<b>Annexes .....</b>	<b>35</b>
Annex I: Definitions of essential services .....	36
Annex II: Population estimations .....	37

# ACRONYMS

<b>HeRAMS</b>	Health Resources and Services Availability Monitoring System
<b>HF</b>	Health facility
<b>IEC</b>	Information, education, and communications
<b>MDRTB</b>	Multidrug-resistant tuberculosis
<b>WHO</b>	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 <https://www.who.int/initiatives/herams> or contact [herams@who.int](mailto:herams@who.int).

---

<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>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, <https://www.who.int/publications/m/item/herams-yemen-baseline-report-2023-general-clinical-and-trauma-care-services>.

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

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

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



# PART I:

## OVERVIEW OF THE AVAILABILITY OF COMMUNICABLE DISEASE SERVICES



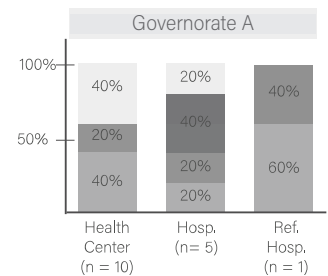
# HOW TO READ THE CHARTS

## 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 [annex I](#).

### Service availability per population (heat map)

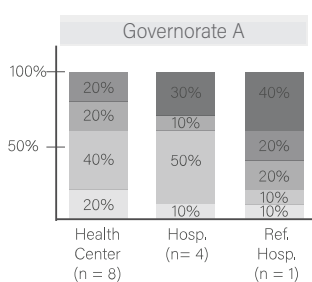


A more detailed overview of availability of individual services is shown as heat maps. Each cell indicates the number of health facilities providing a given service in relation to the catchment population. It should be noted that different catchment areas were used for referral and specialized health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



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.



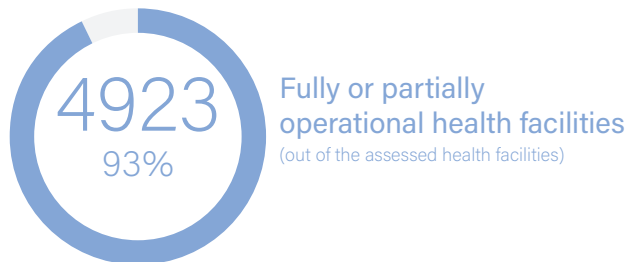
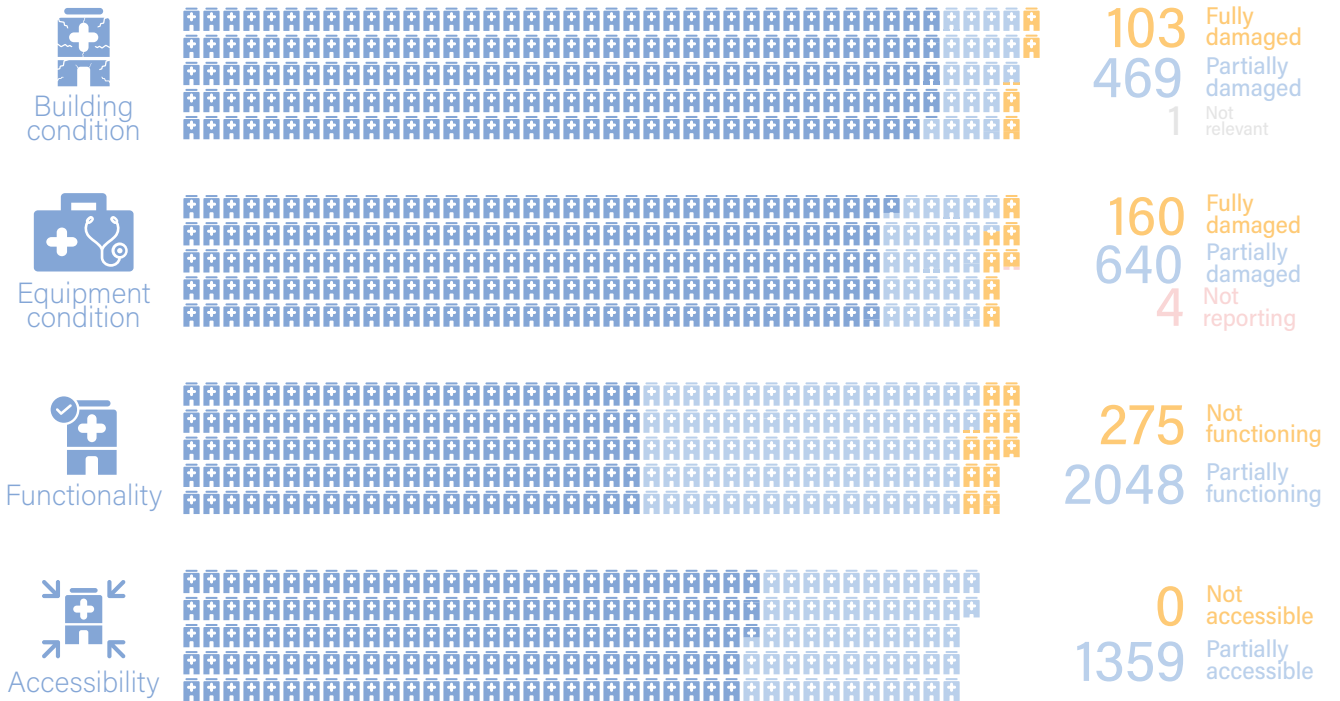
# OVERVIEW OF HEALTH FACILITIES ASSESSED

Summary of health facilities assessed

5536 targeted health facilities

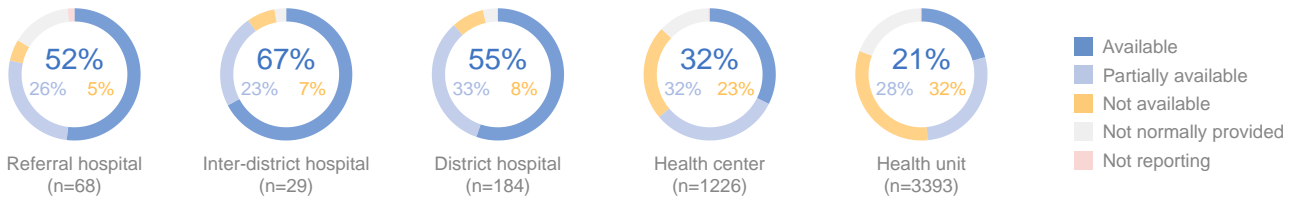


5301 health facilities assessed

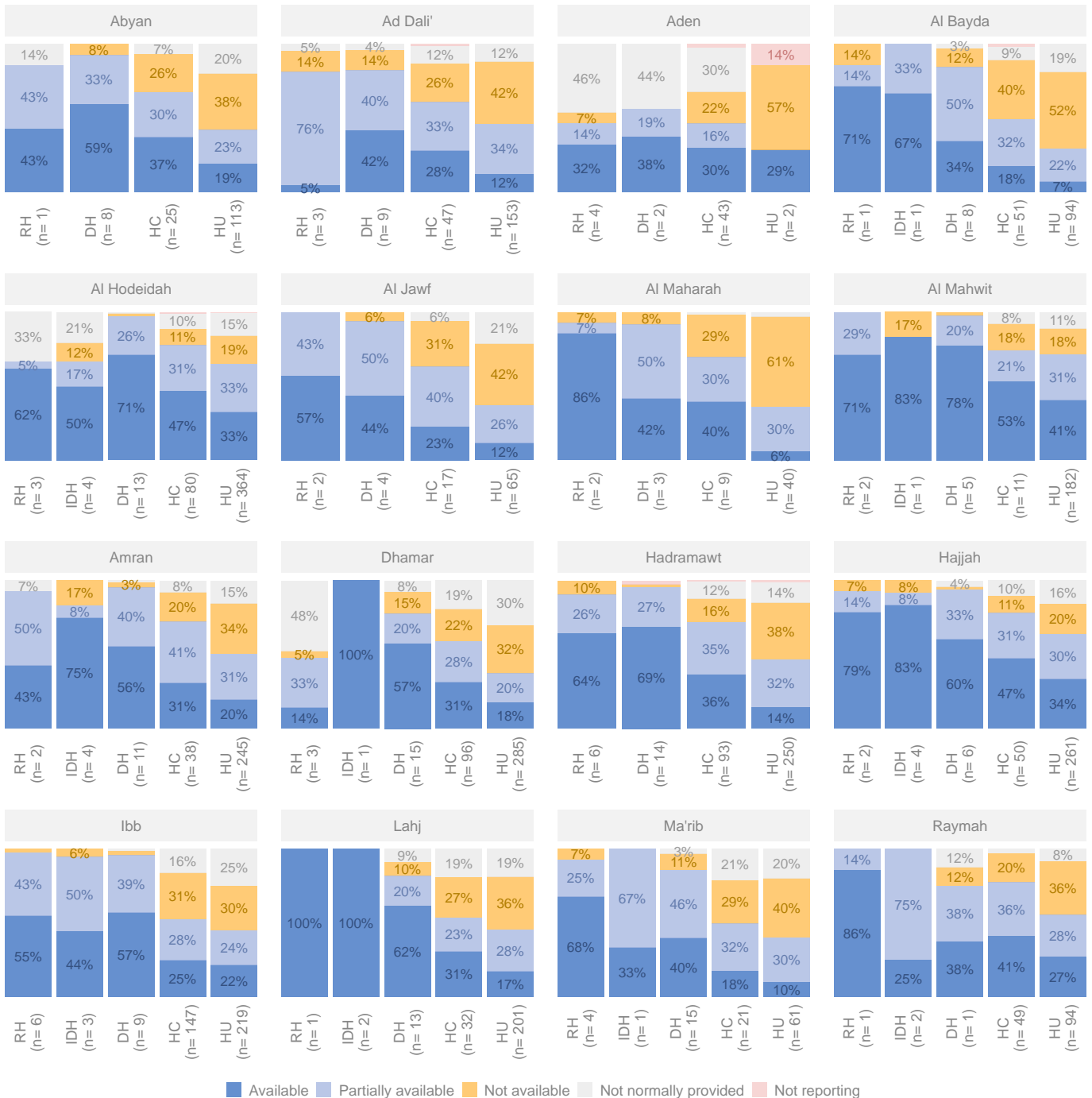


# AVAILABILITY OF SERVICE PACKAGE AND MAIN BARRIERS

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

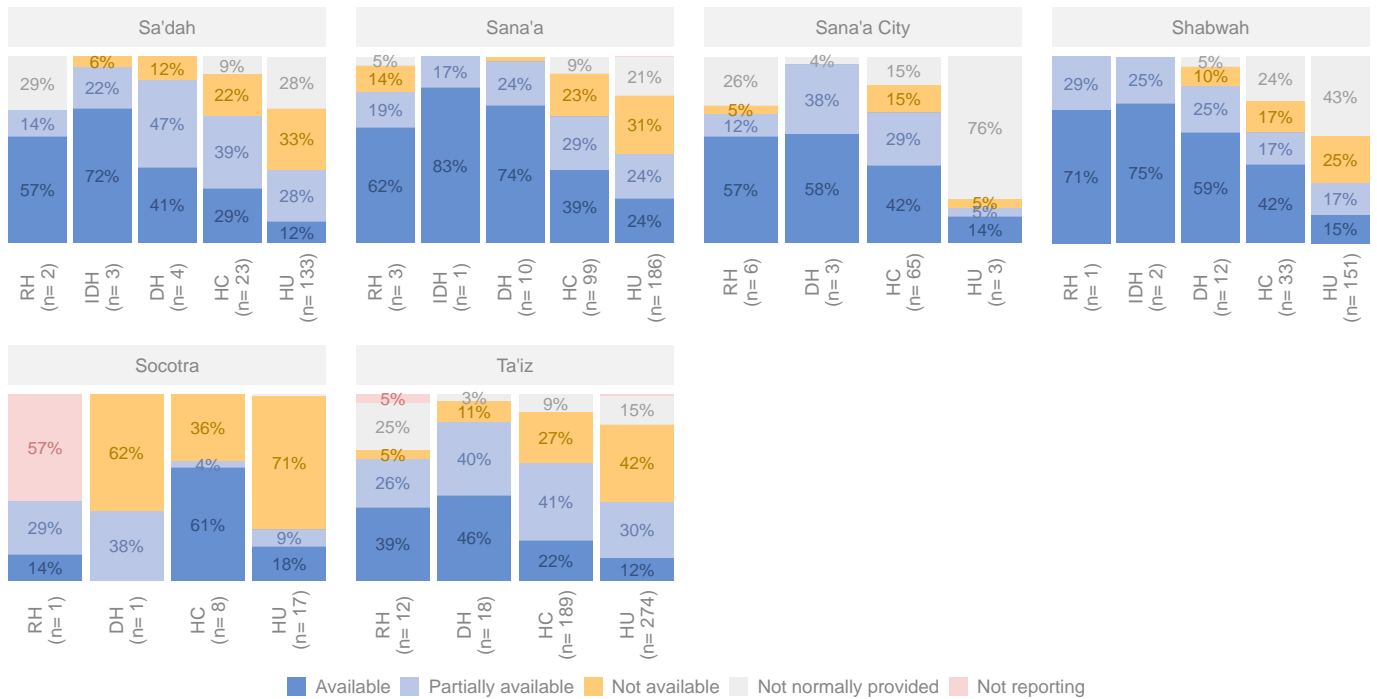


Package coverage by governorate and health facility type<sup>6</sup>

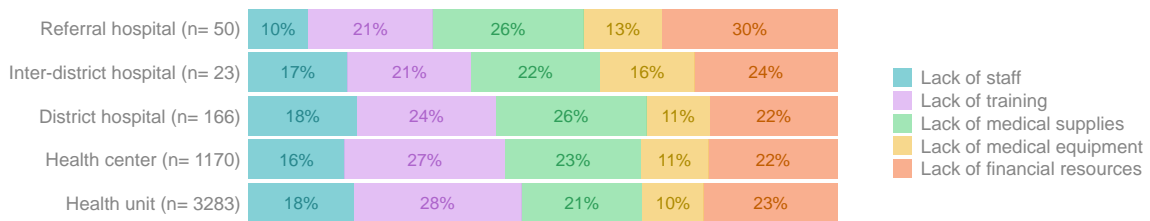


<sup>6</sup> Number of services included may vary from one health facility type to another. The "Other" HF type has been excluded as it includes very different and specialized HFs. See [Annex I](#) for a full description of the services included for each health facility type.

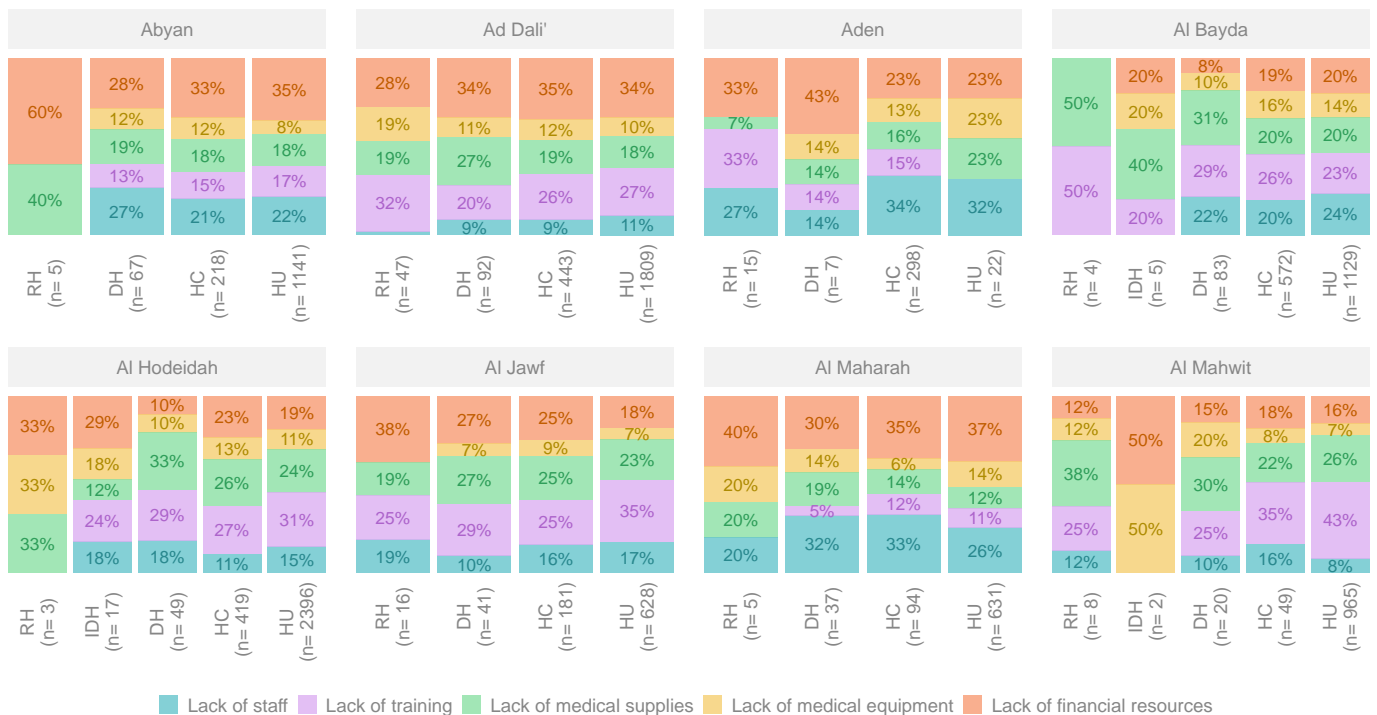
Availability of essential services by governorate and health facility type (cont.)



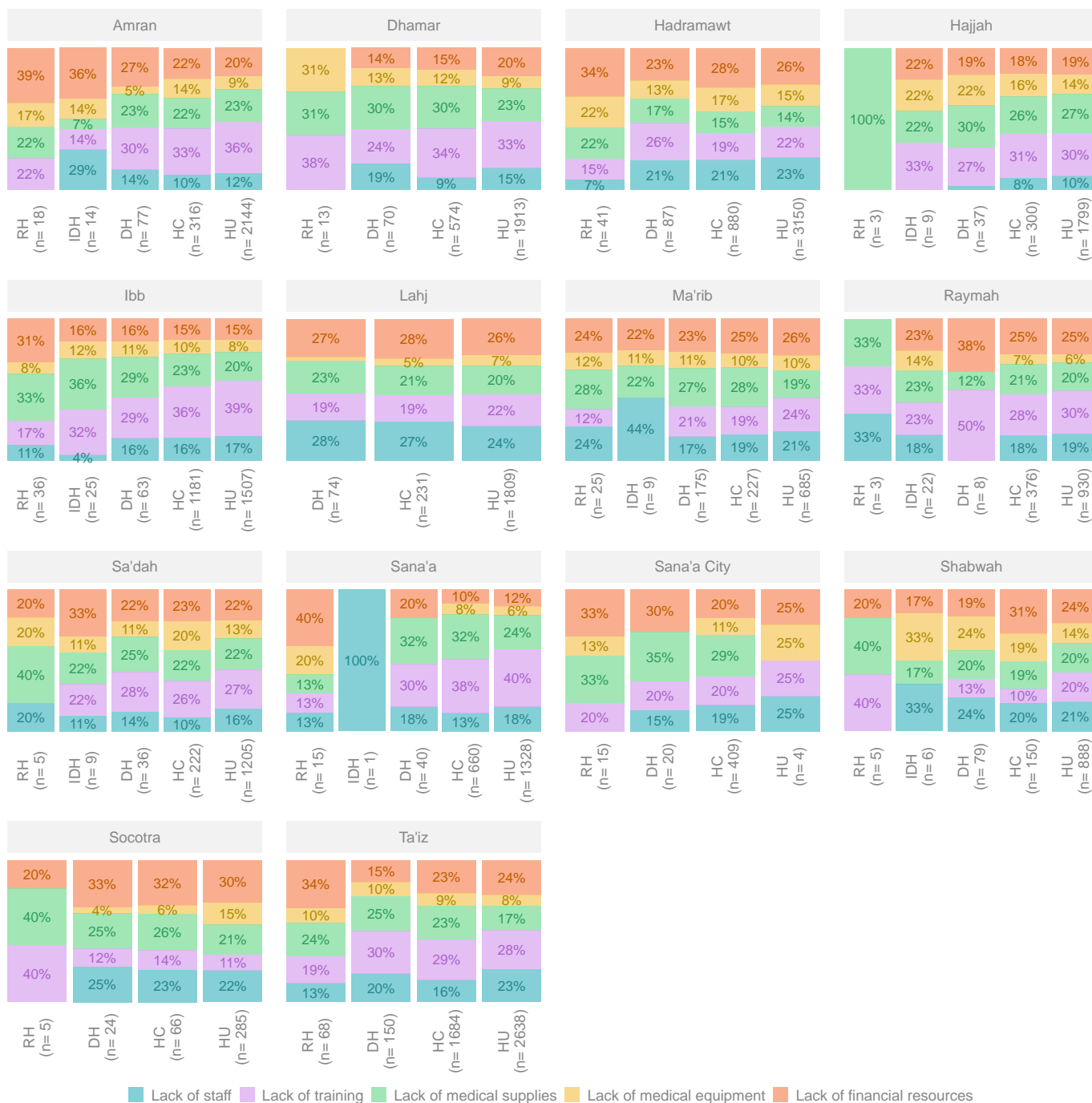
Main barriers impeding availability of essential health services by health facility type



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



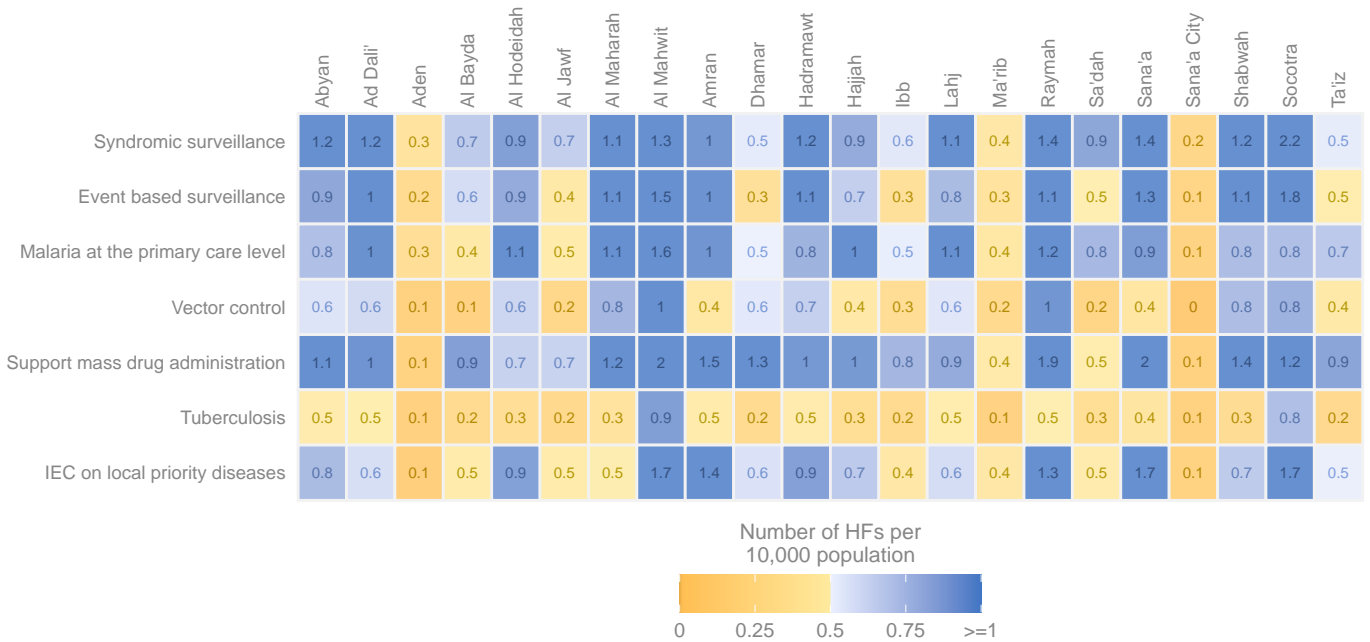
### Main barriers impeding availability of essential health services by governorate and health facility type



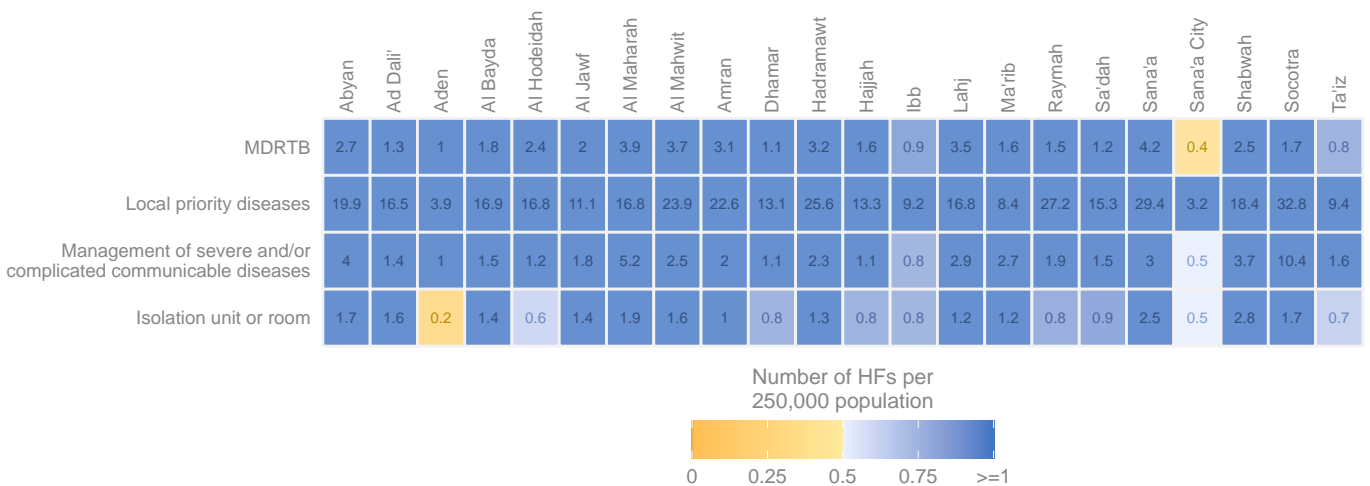
# SERVICE AVAILABILITY BY CATCHMENT POPULATION

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

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



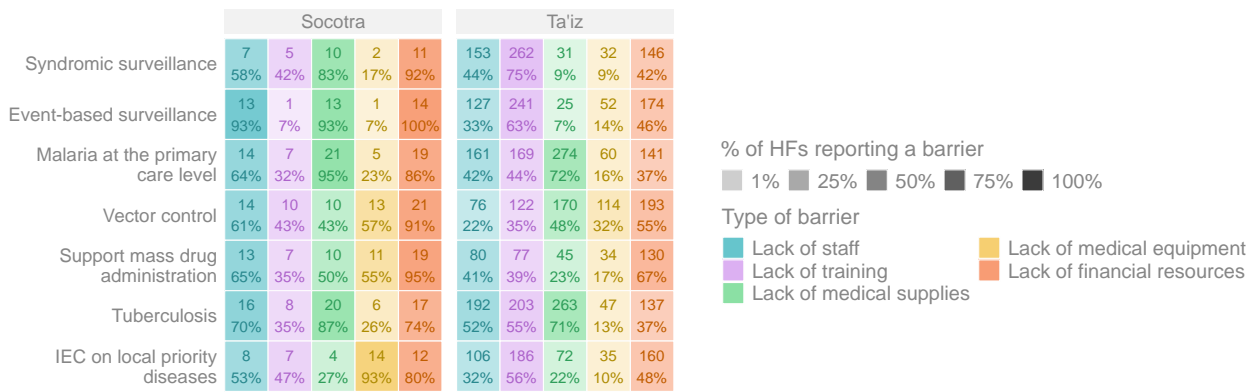
## Number of health facilities providing specialized services per 250,000 population<sup>7</sup>



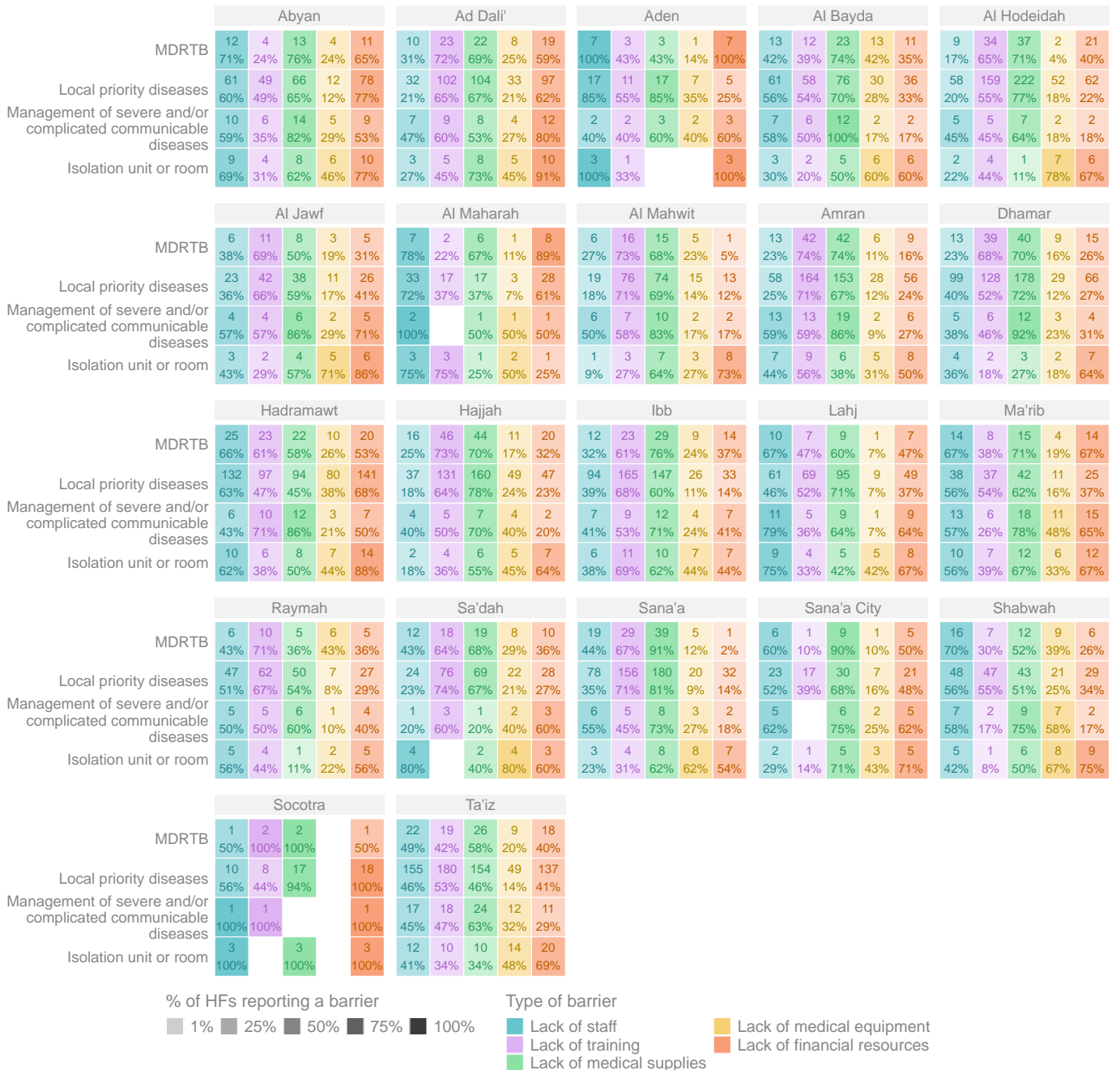
<sup>7</sup> Sphere minimum standard: 1 HF per 10,000 population and 1 hospital per 250,000 population. See annex II for population estimates by governorate and by district.



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



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





# 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.



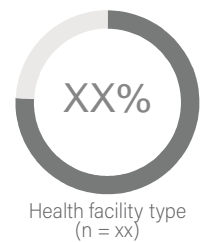
### Column charts

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.

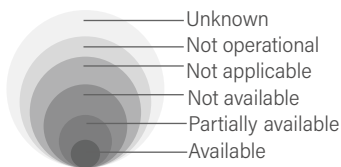


### Donut charts

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.

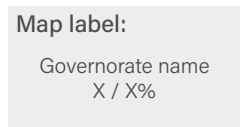


## Maps



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.

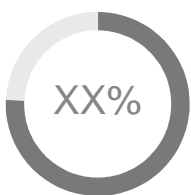


## Barriers

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.

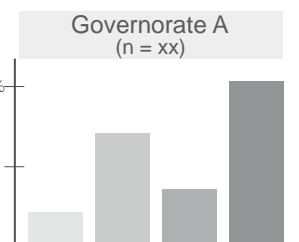
### Donut charts

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

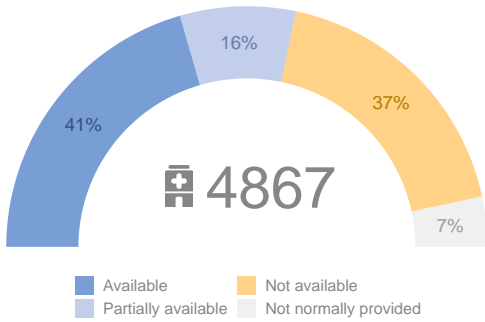
Bar charts depicting barriers follow the same logic as donut charts and exclude health facilities where the service was fully available. The number of health facilities reporting at least one barrier is displayed below the governorates' name.



**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%.

# SYNDROMIC SURVEILLANCE

## Overall service availability

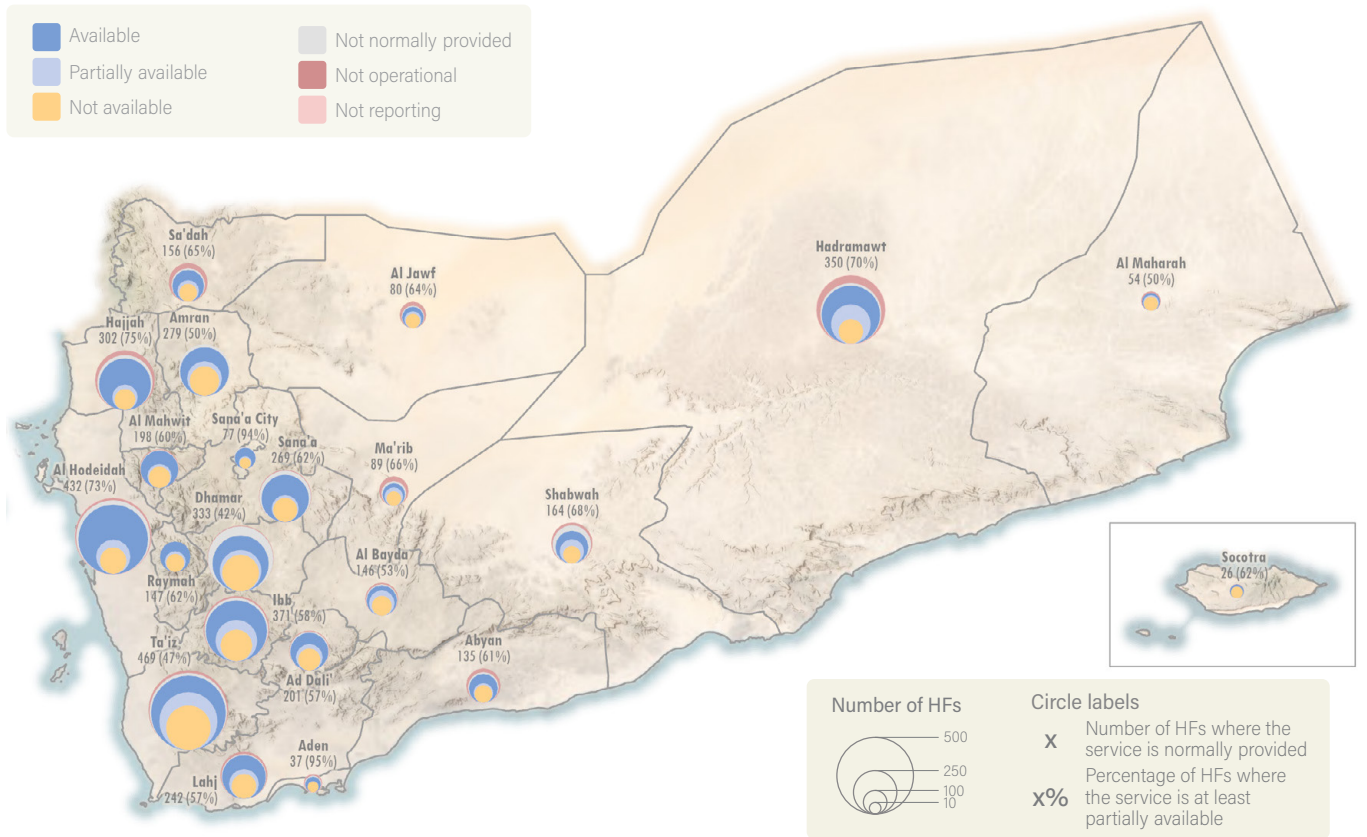
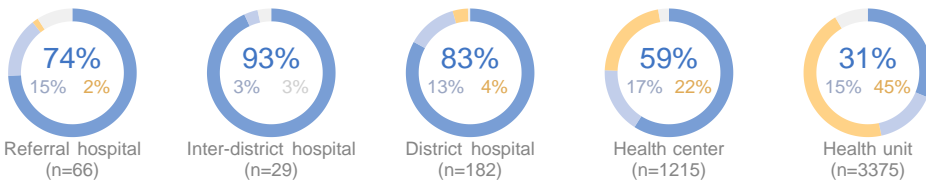


## Main barriers impeding service delivery

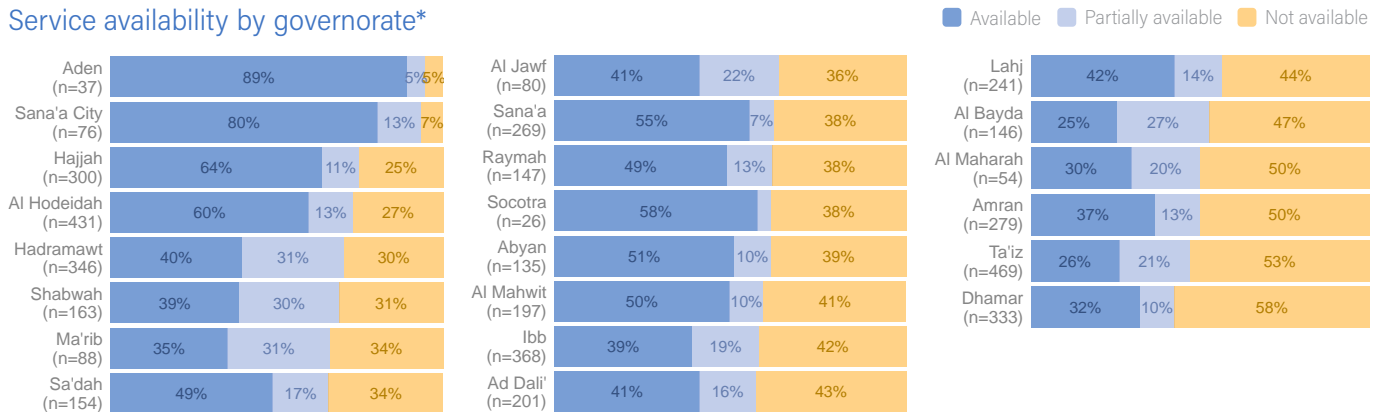
n = 2543



## Service availability by type of HF



### Service availability by governorate\*



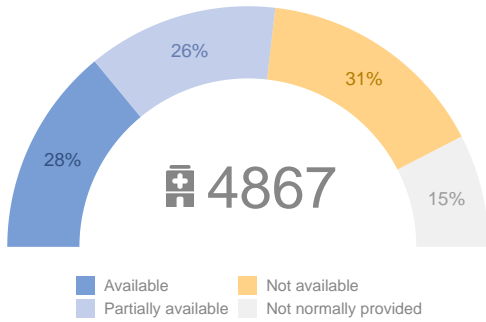
### Main barriers impeding service delivery by governorate



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

# EVENT-BASED SURVEILLANCE

Overall service availability

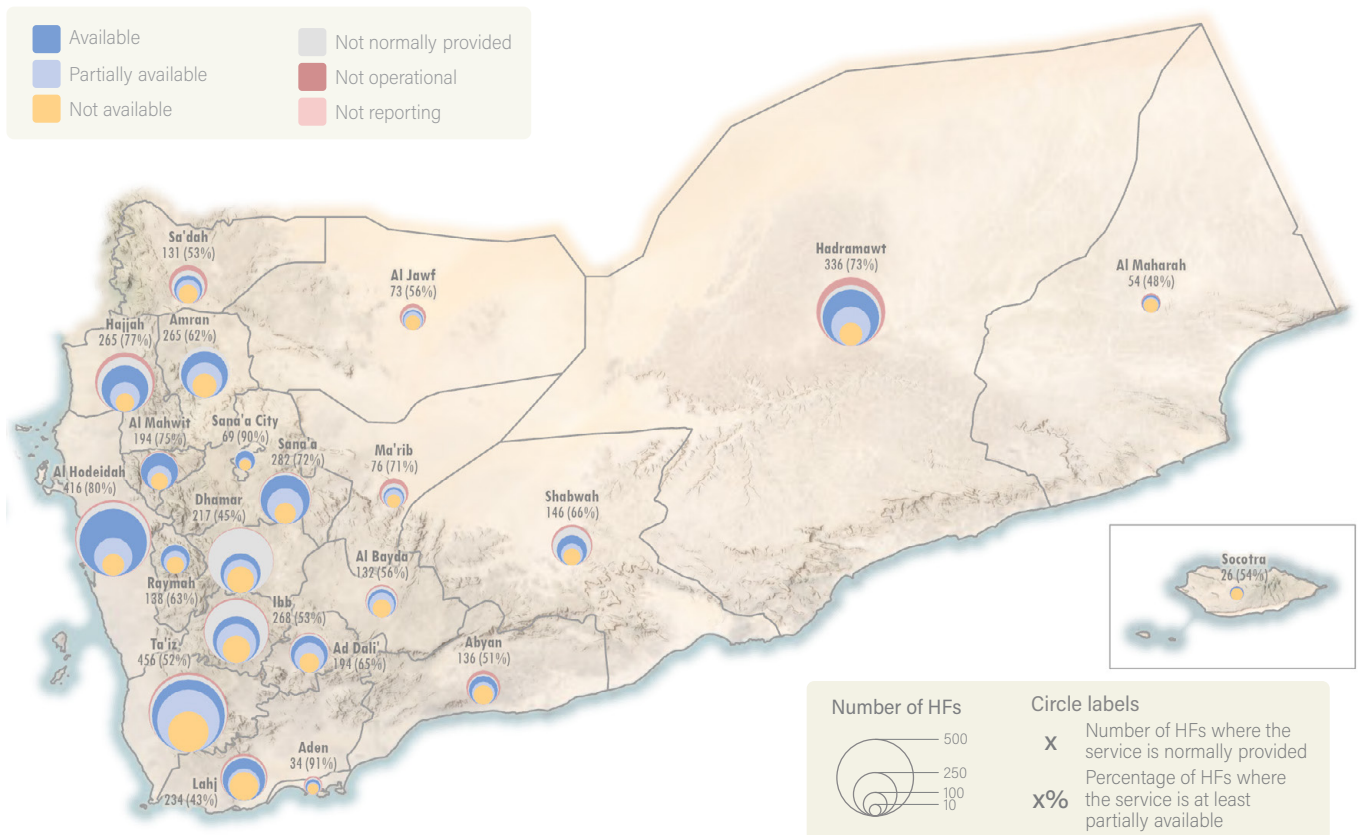
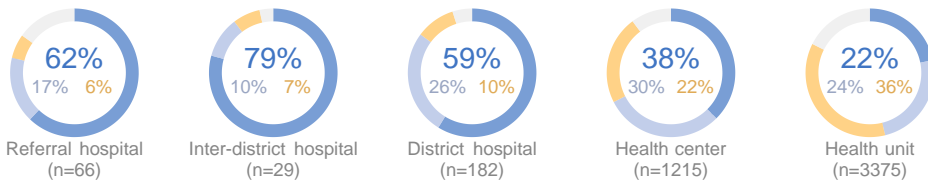


Main barriers impeding service delivery

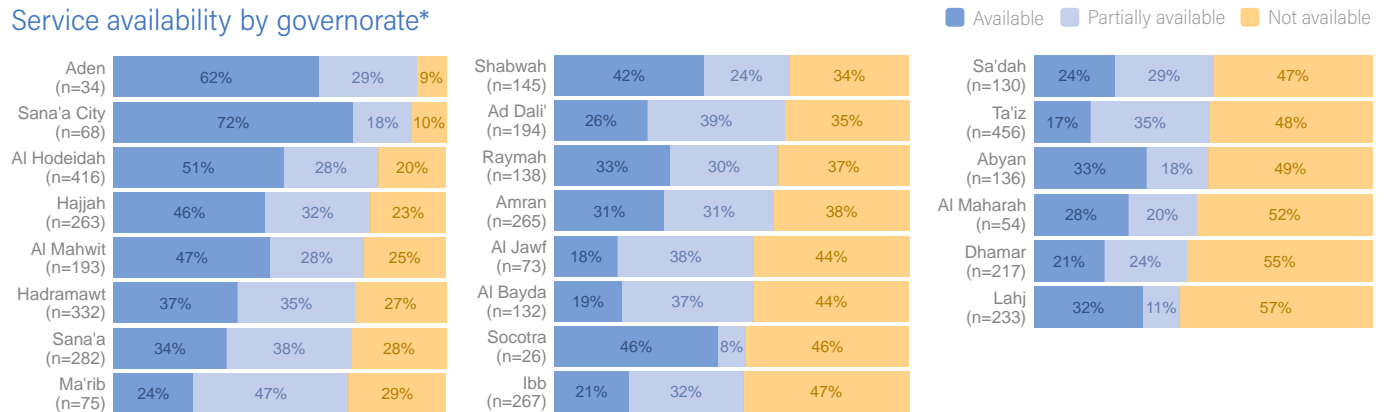
n = 2765



Service availability by type of HF



### Service availability by governorate\*



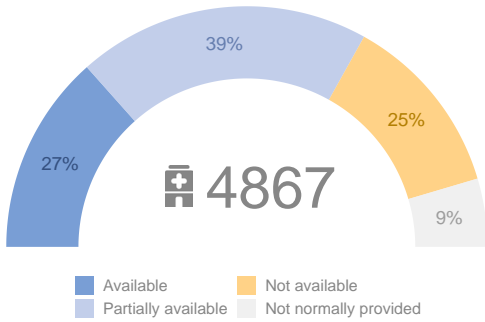
### Main barriers impeding service delivery by governorate



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

# MALARIA AT THE PRIMARY CARE LEVEL

## Overall service availability

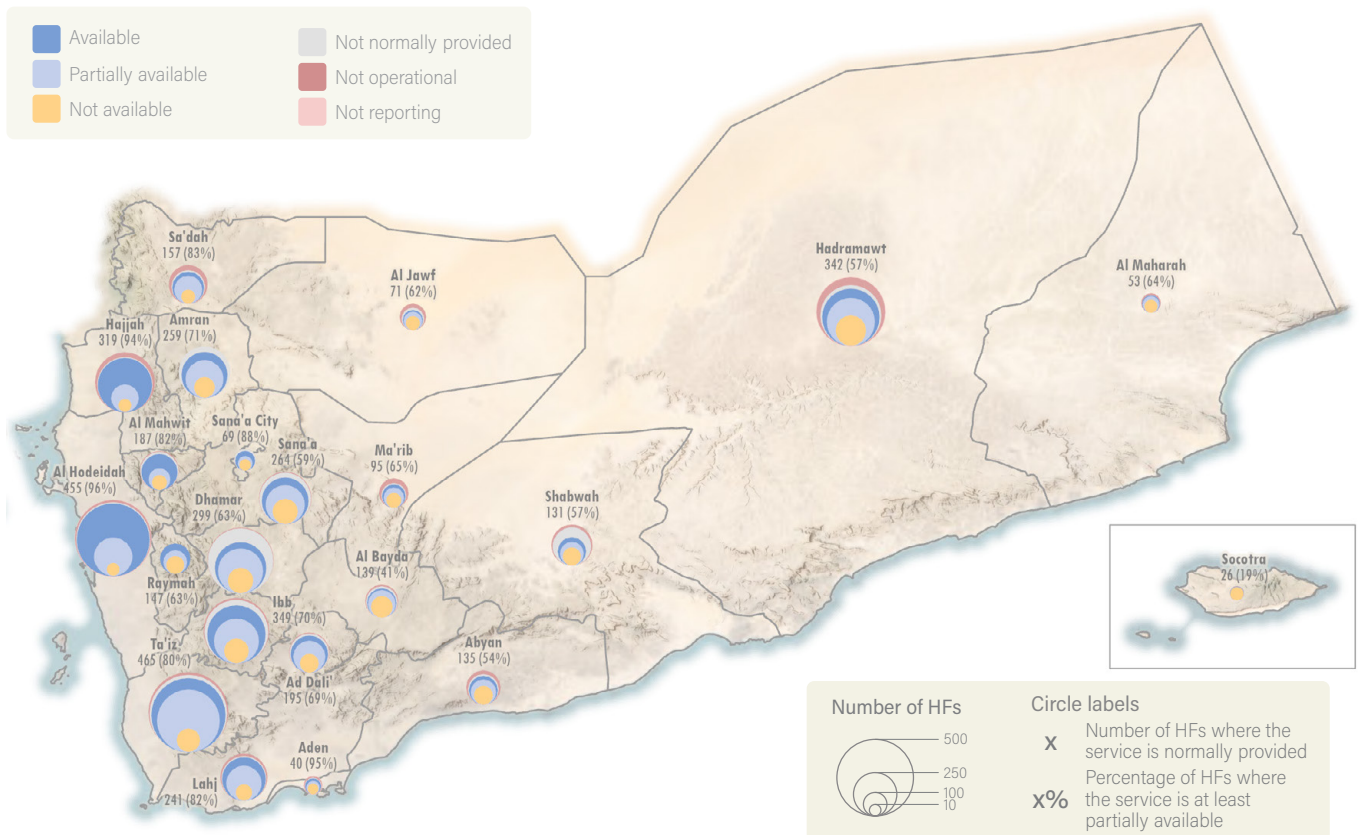
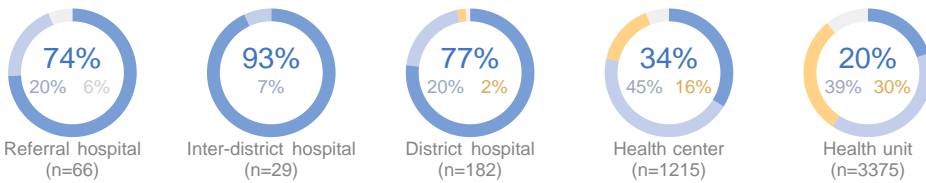


## Main barriers impeding service delivery

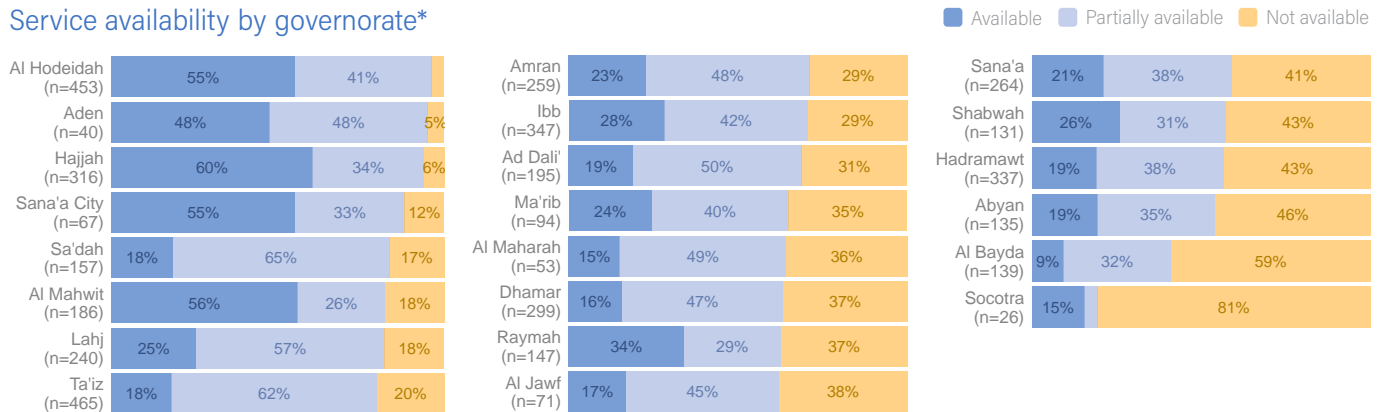
n = 3115



## Service availability by type of HF



### Service availability by governorate\*



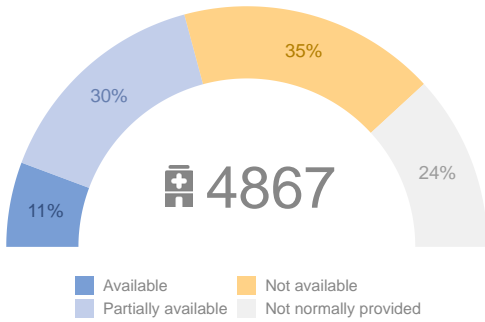
### Main barriers impeding service delivery by governorate



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

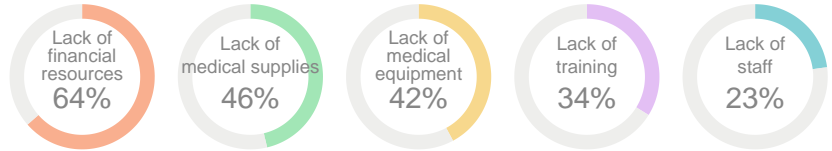
# VECTOR CONTROL

## Overall service availability

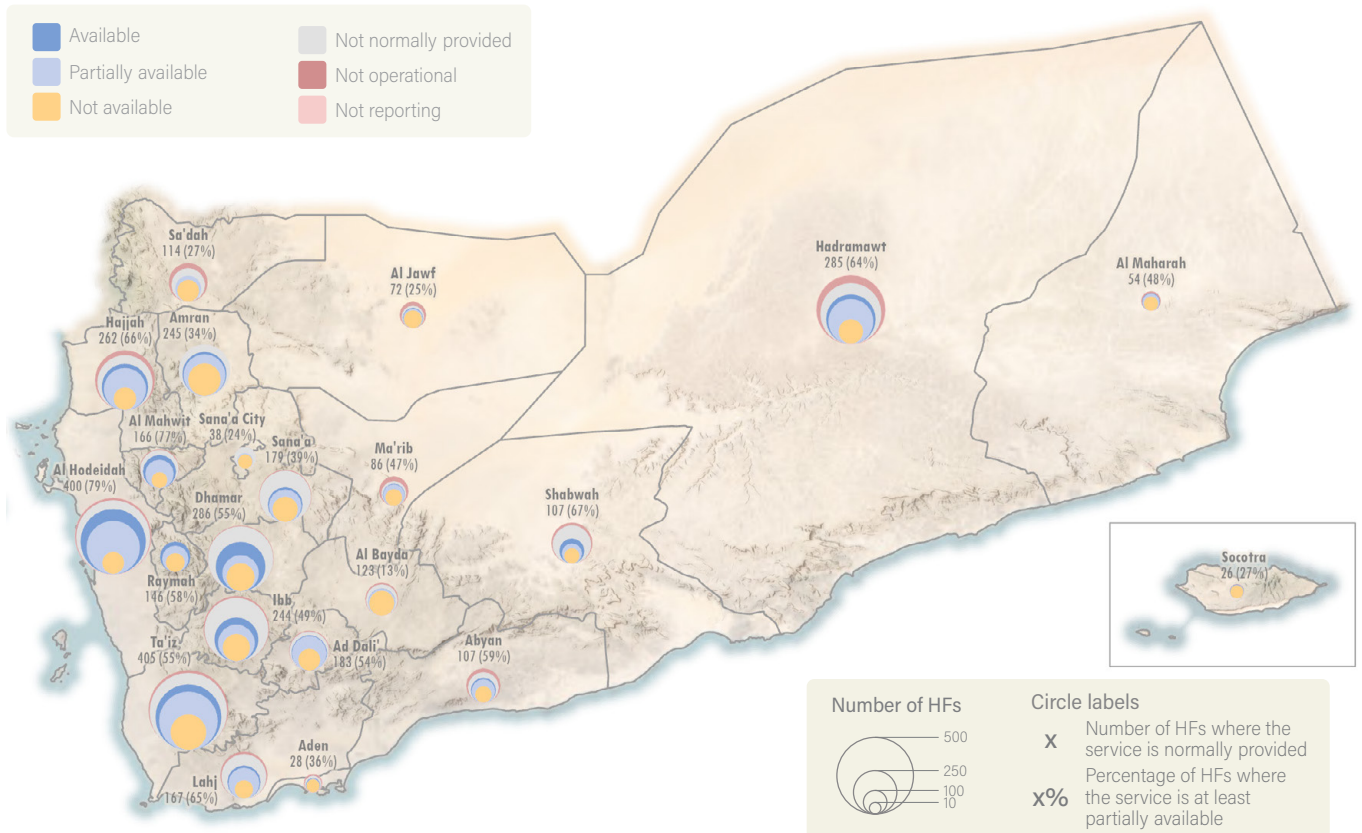
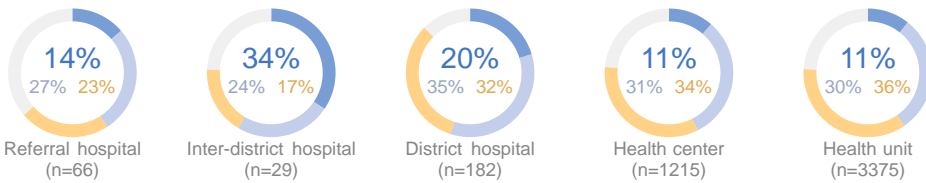


## Main barriers impeding service delivery

n = 3161

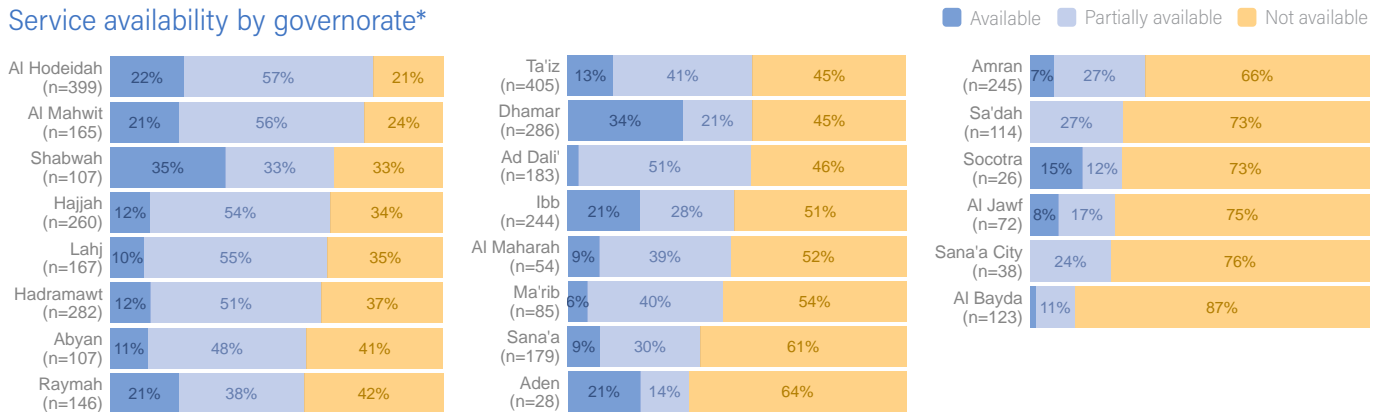


## Service availability by type of HF





### Service availability by governorate\*



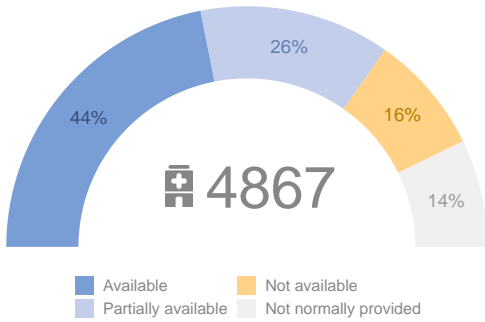
### Main barriers impeding service delivery by governorate



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

# SUPPORT MASS DRUG ADMINISTRATION

## Overall service availability

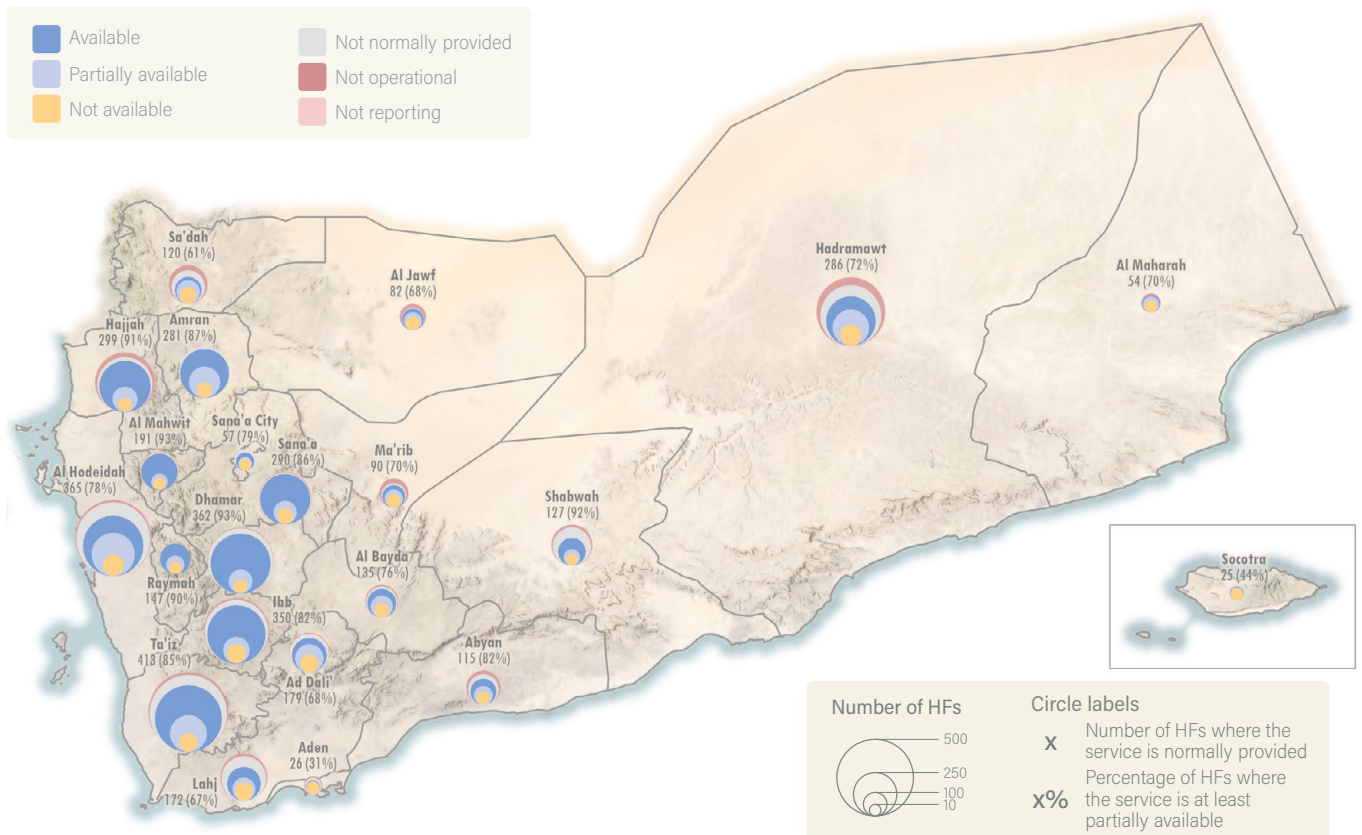
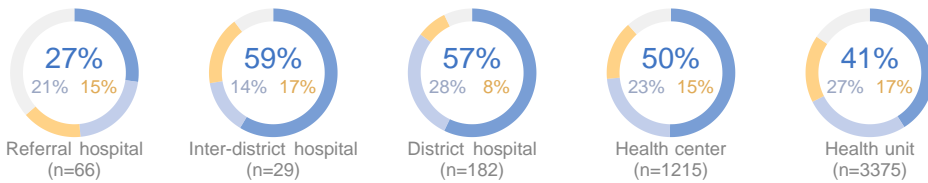


## Main barriers impeding service delivery

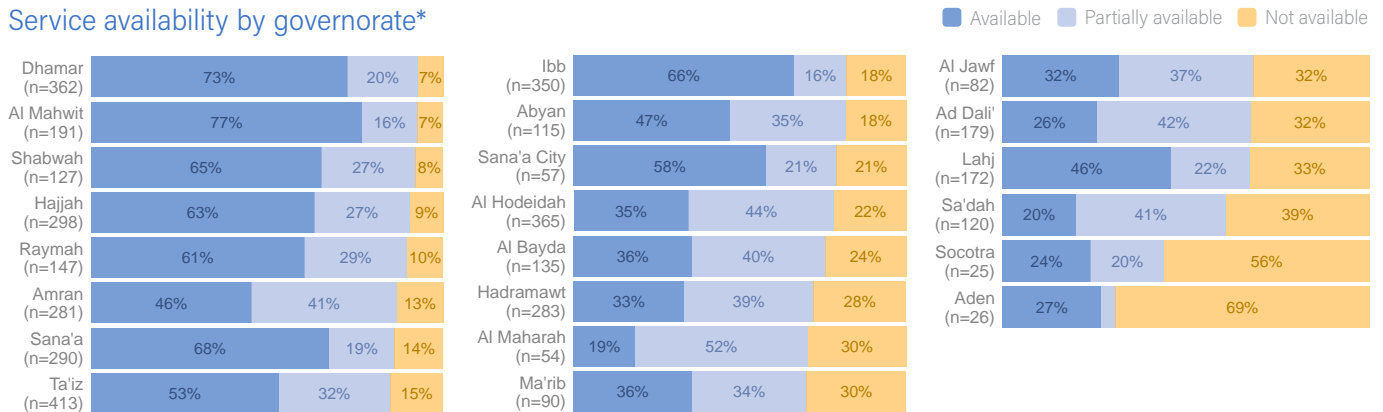
n = 2029



## Service availability by type of HF



### Service availability by governorate\*



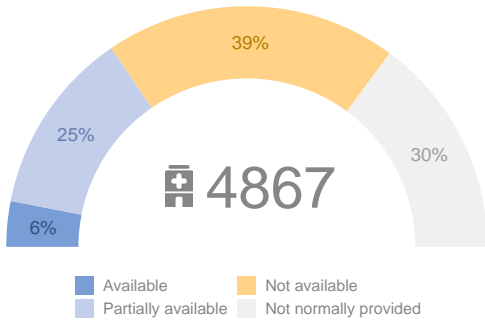
### Main barriers impeding service delivery by governorate



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

# TUBERCULOSIS

## Overall service availability

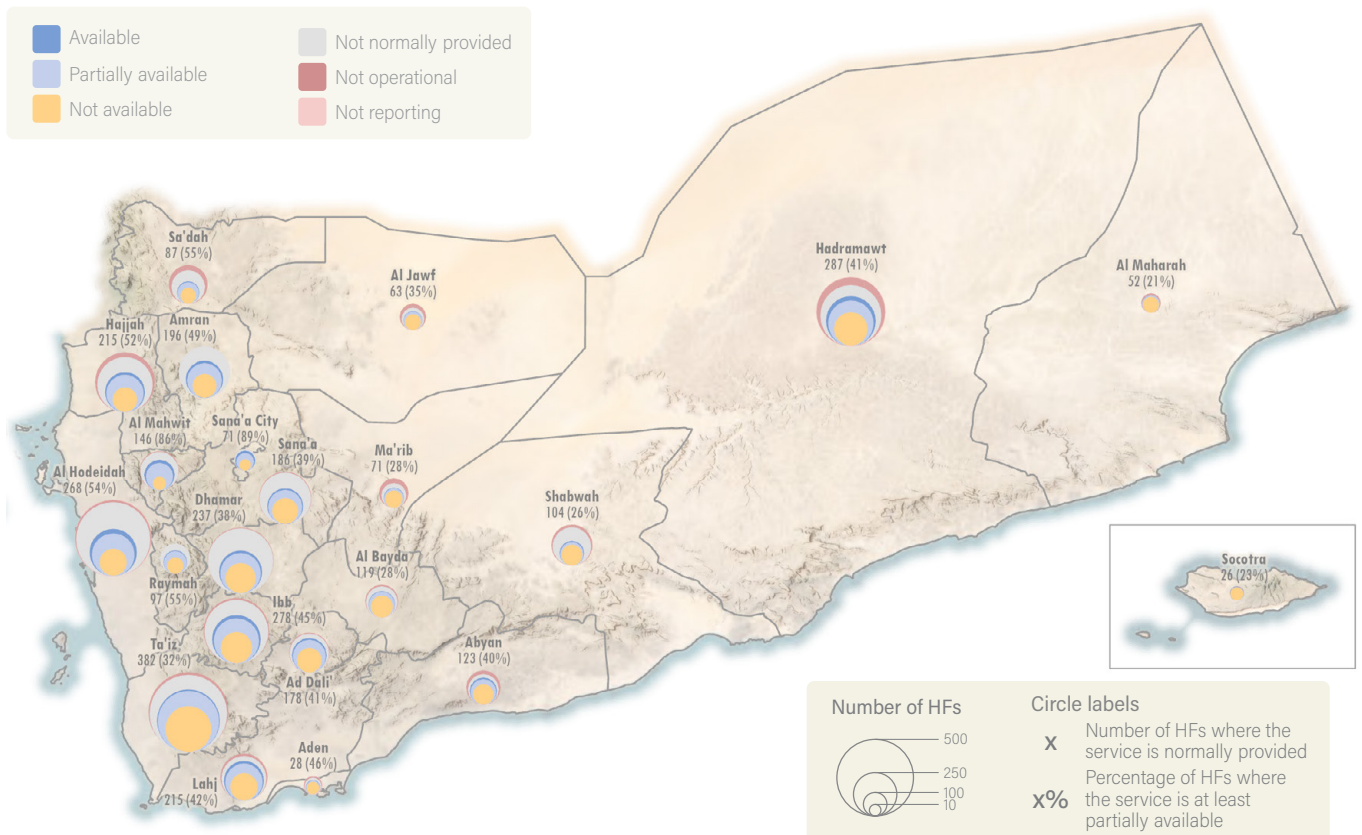
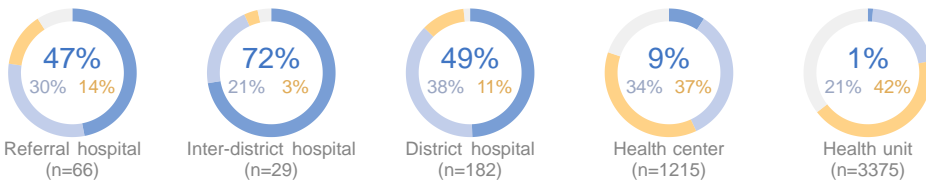


## Main barriers impeding service delivery

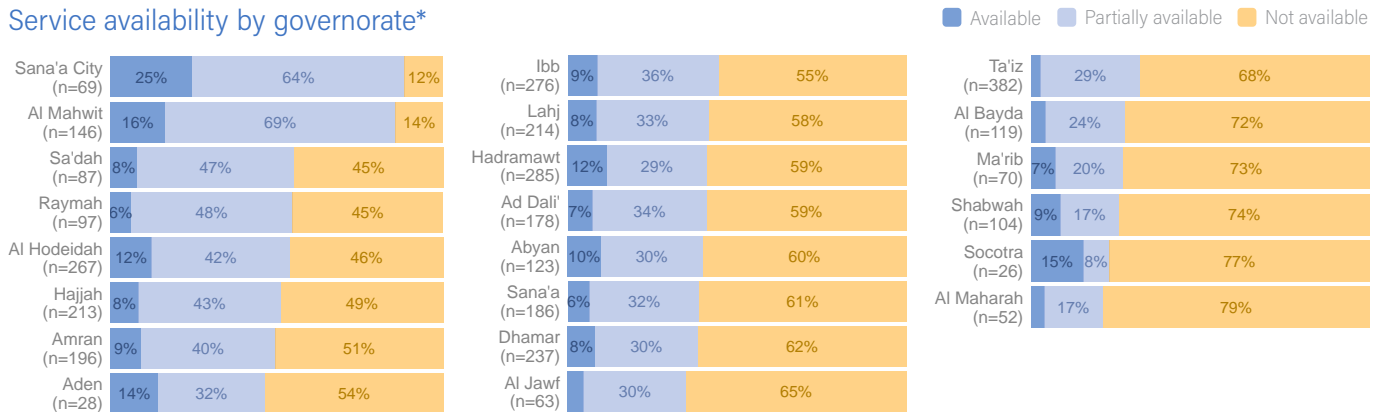
n = 3121



## Service availability by type of HF



### Service availability by governorate\*



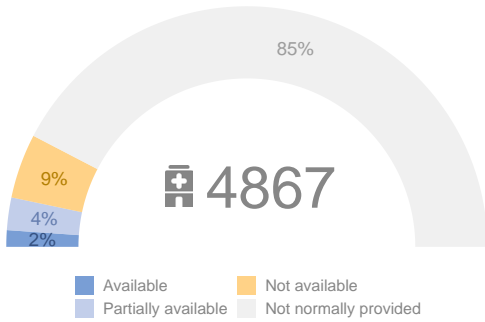
### Main barriers impeding service delivery by governorate



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

# MULTIDRUG-RESISTANT TUBERCULOSIS

## Overall service availability

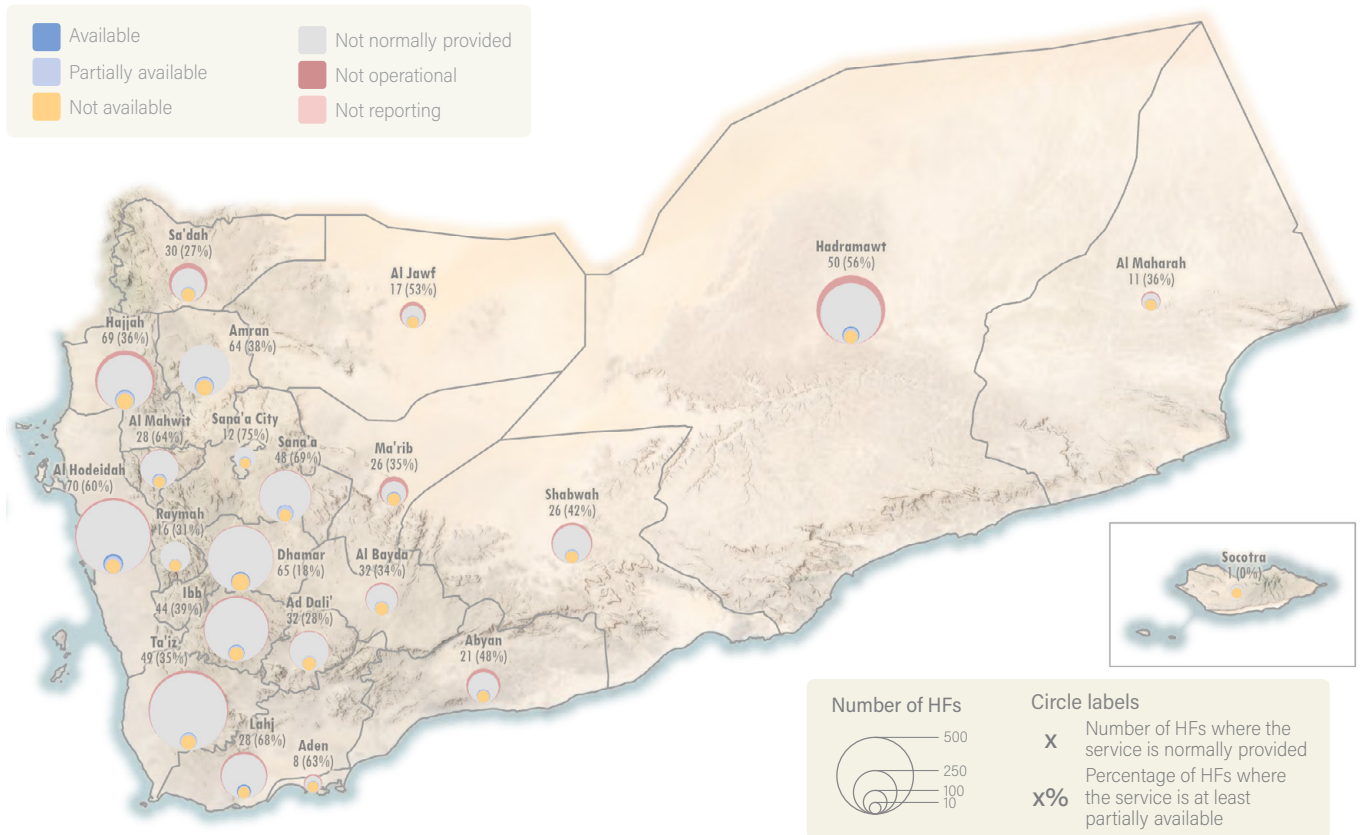
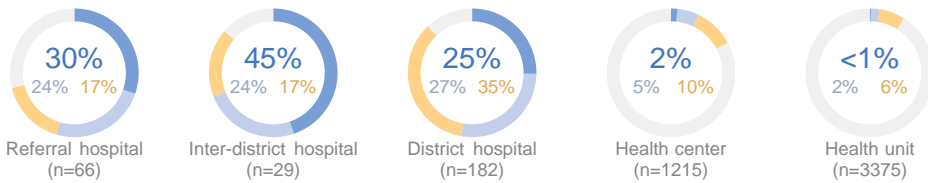


## Main barriers impeding service delivery

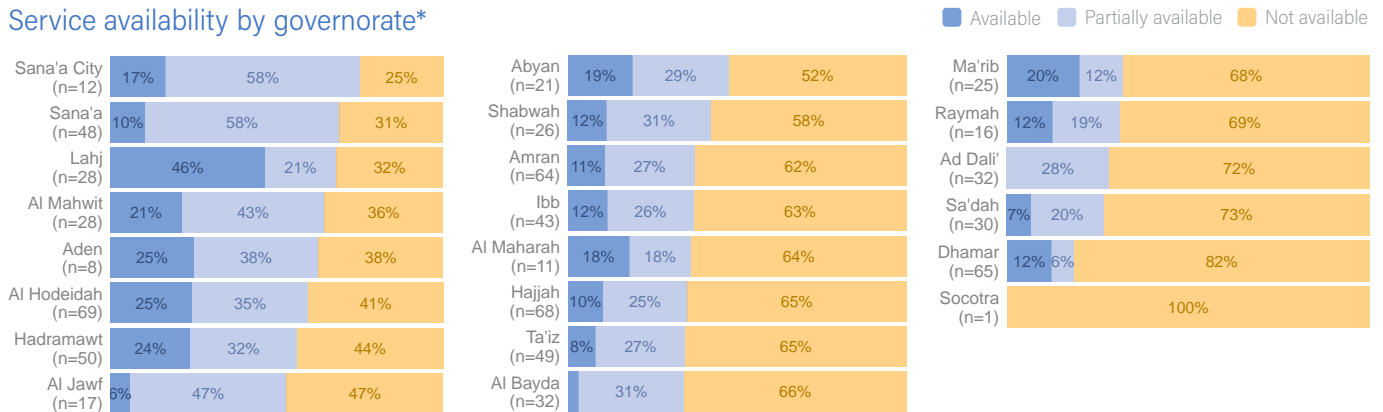
n = 635



## Service availability by type of HF



### Service availability by governorate\*



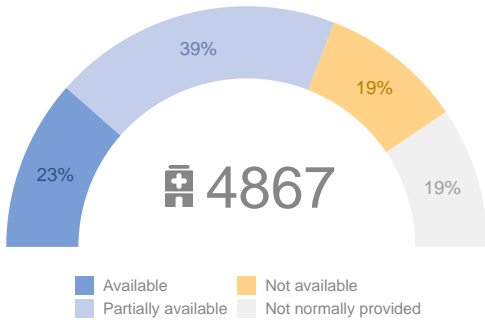
### Main barriers impeding service delivery by governorate



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

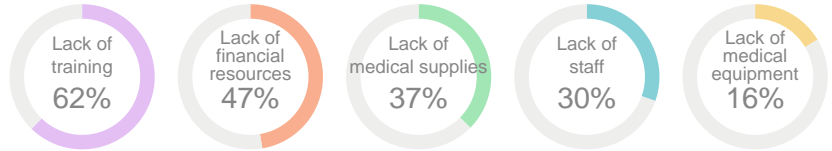
# IEC ON LOCAL PRIORITY DISEASES

## Overall service availability

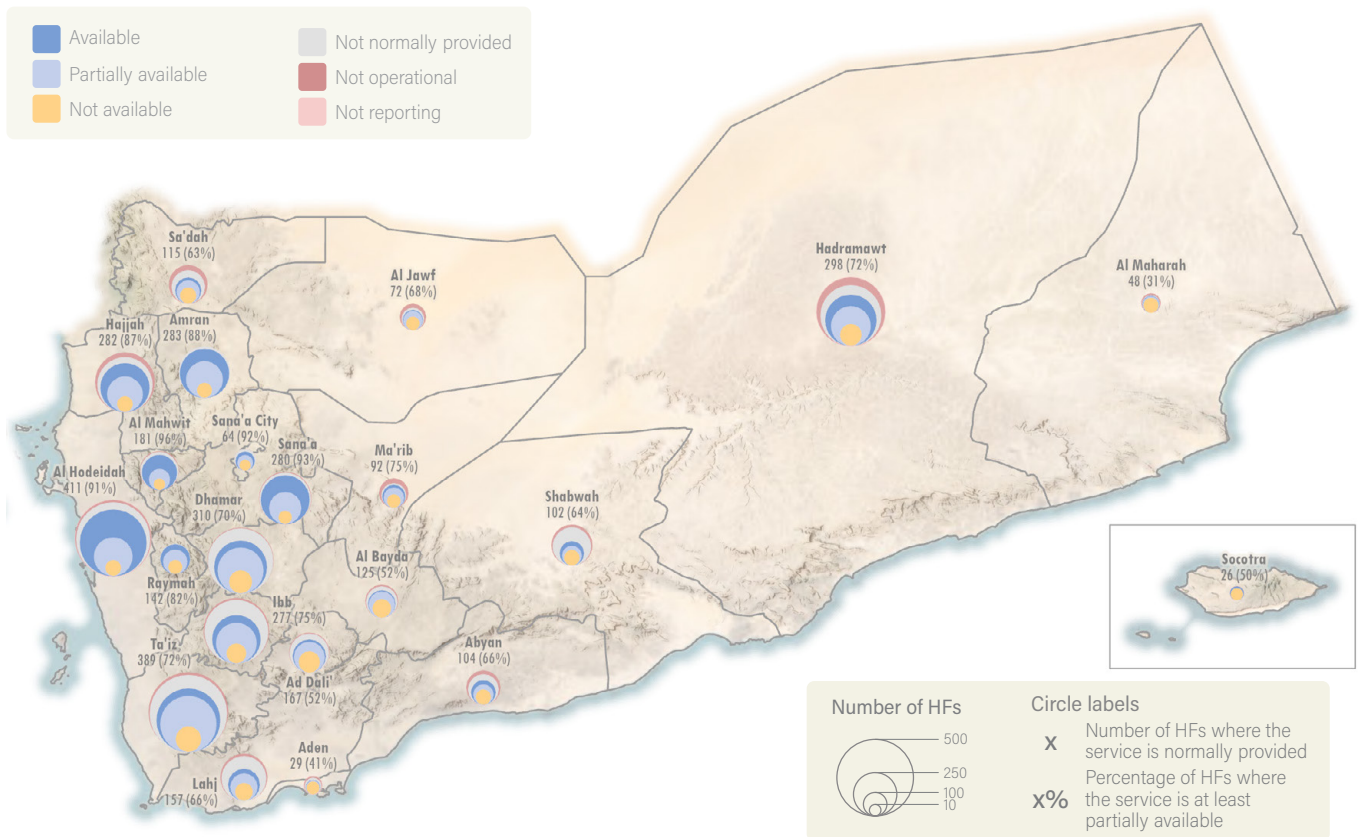
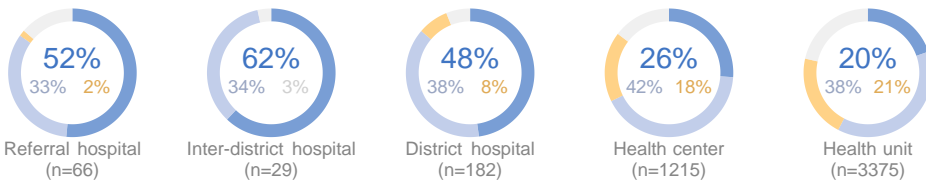


## Main barriers impeding service delivery

n = 2825

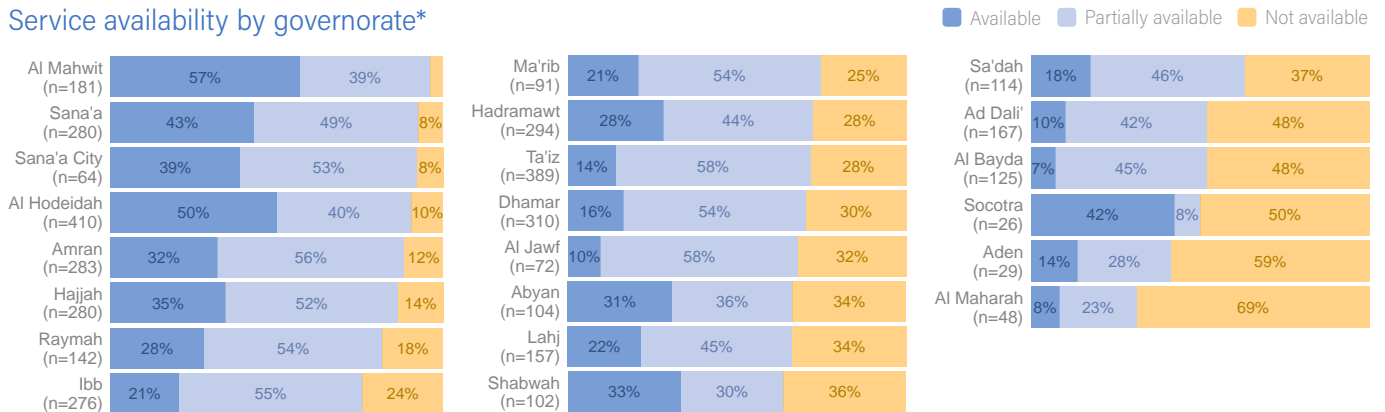


## Service availability by type of HF





### Service availability by governorate\*



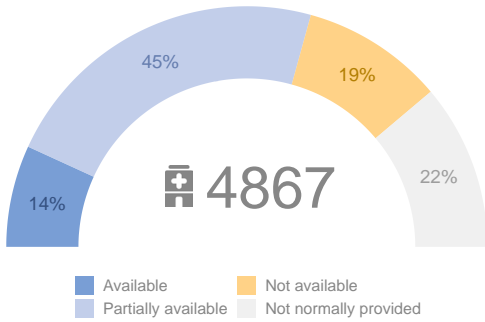
### Main barriers impeding service delivery by governorate



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

# LOCAL PRIORITY DISEASES

## Overall service availability

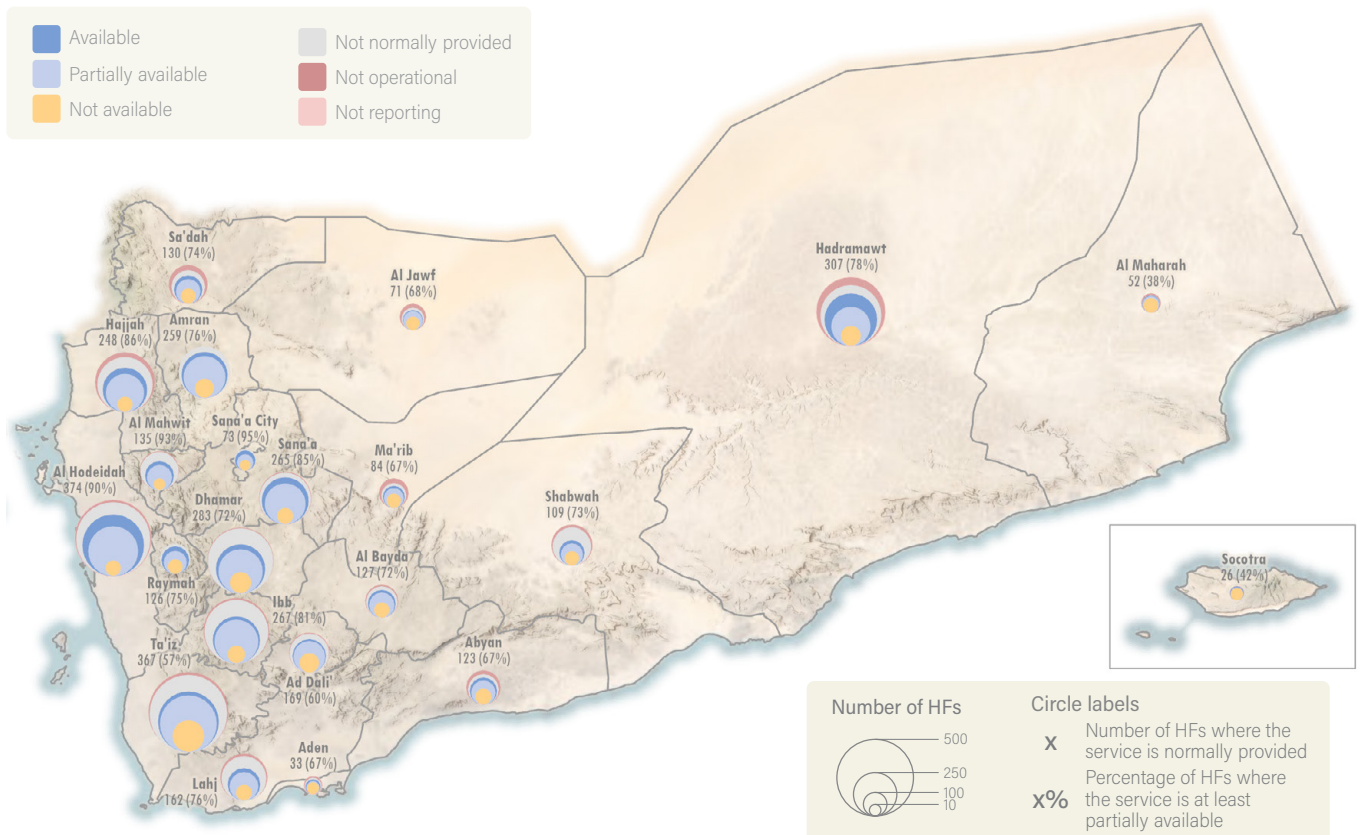
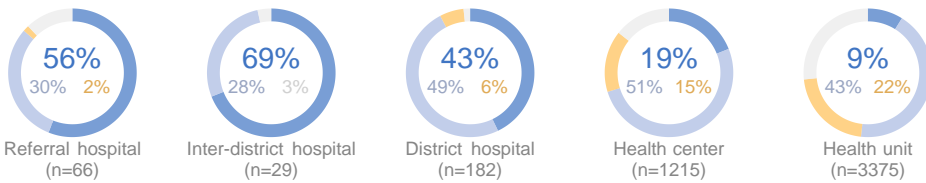


## Main barriers impeding service delivery

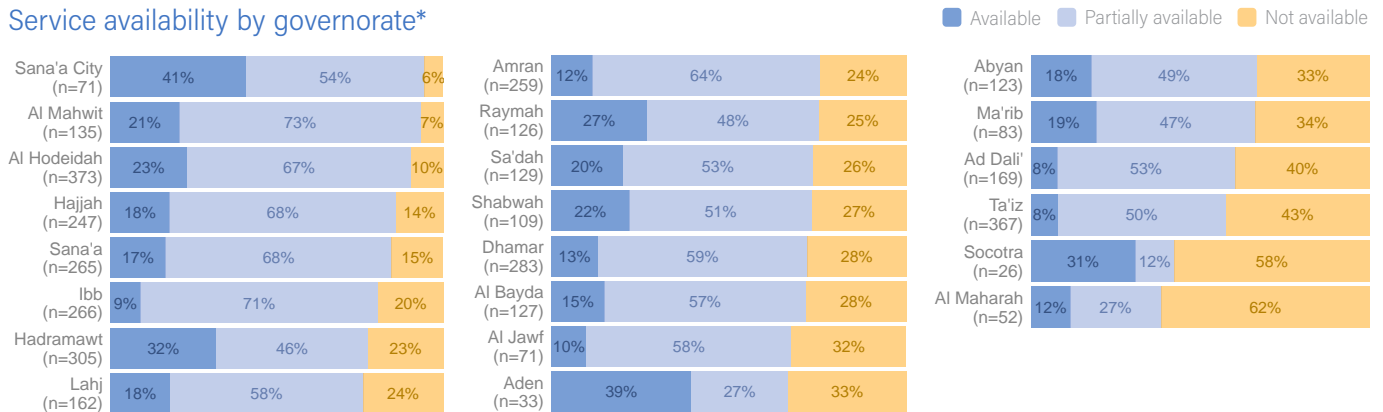
n = 3116



## Service availability by type of HF



### Service availability by governorate\*



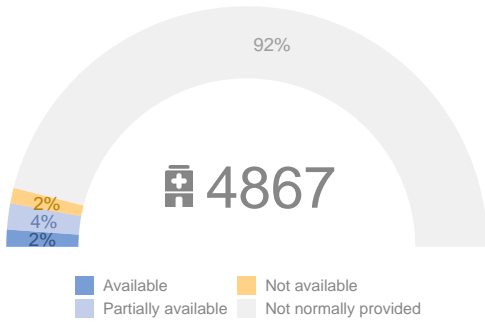
### Main barriers impeding service delivery by governorate



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

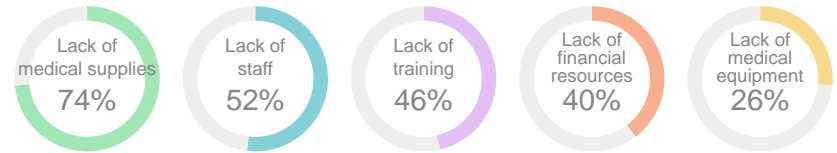
# MANAGEMENT OF SEVERE AND/OR COMPLICATED COMMUNICABLE DISEASES

## Overall service availability

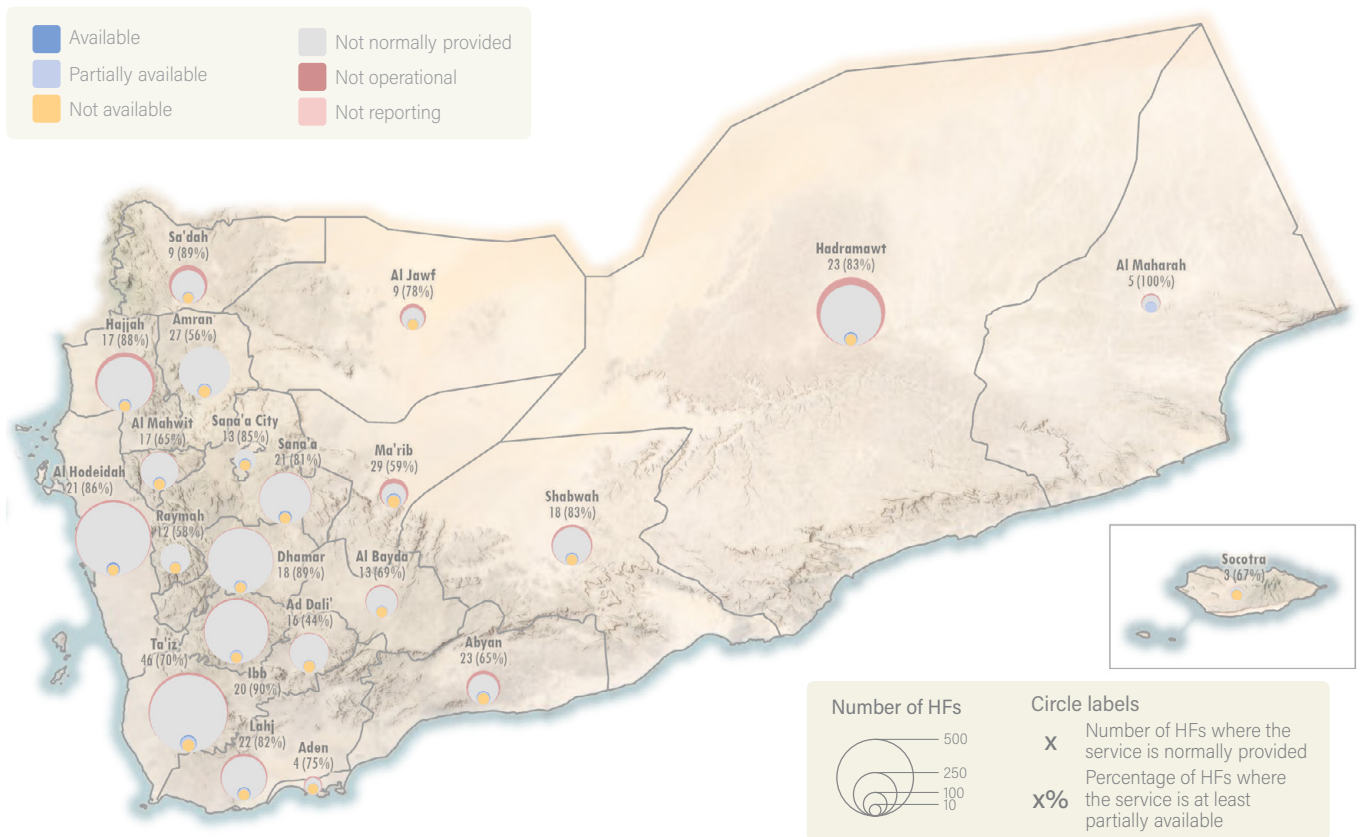
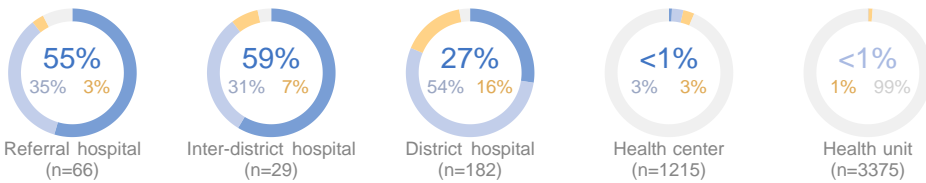


## Main barriers impeding service delivery

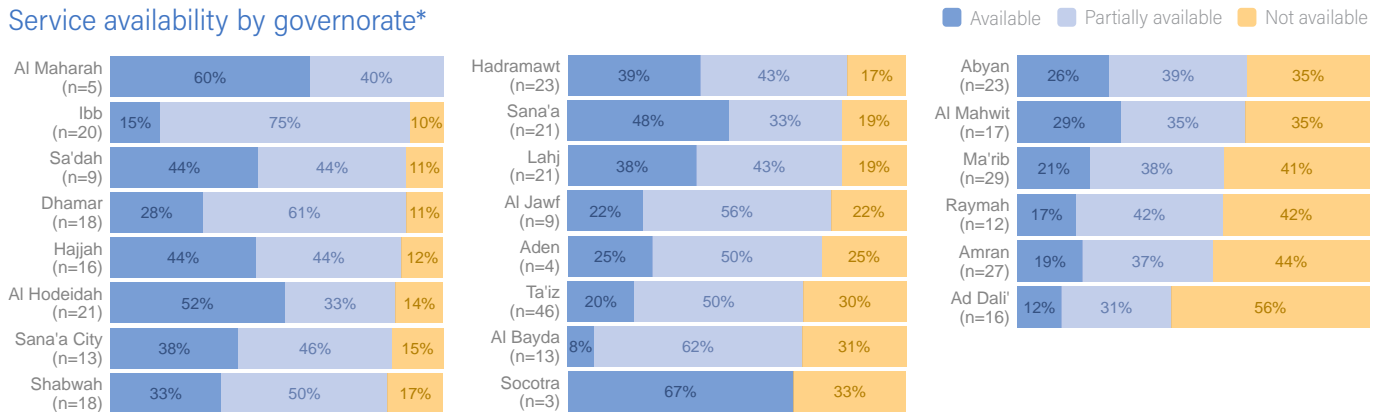
n = 272



## Service availability by type of HF



### Service availability by governorate\*



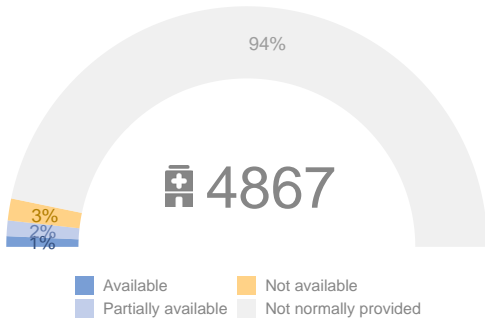
### Main barriers impeding service delivery by governorate



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

# ISOLATION UNIT OR ROOM

## Overall service availability

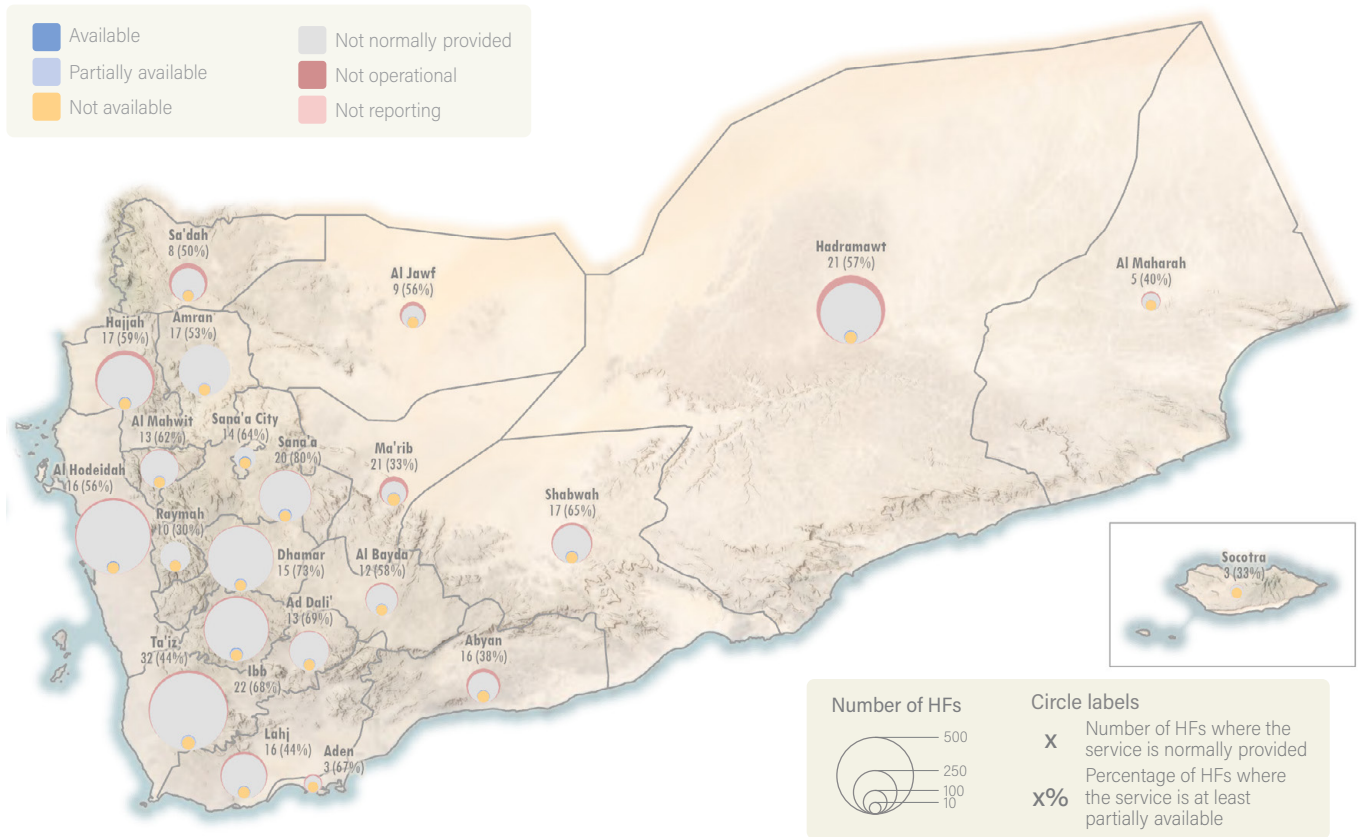
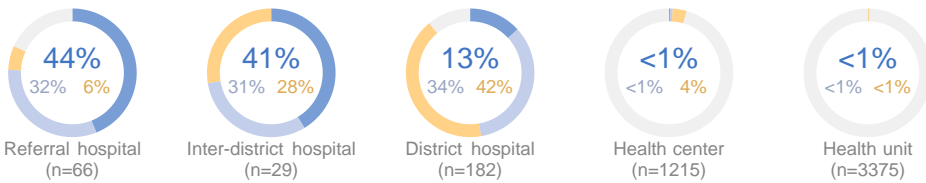


## Main barriers impeding service delivery

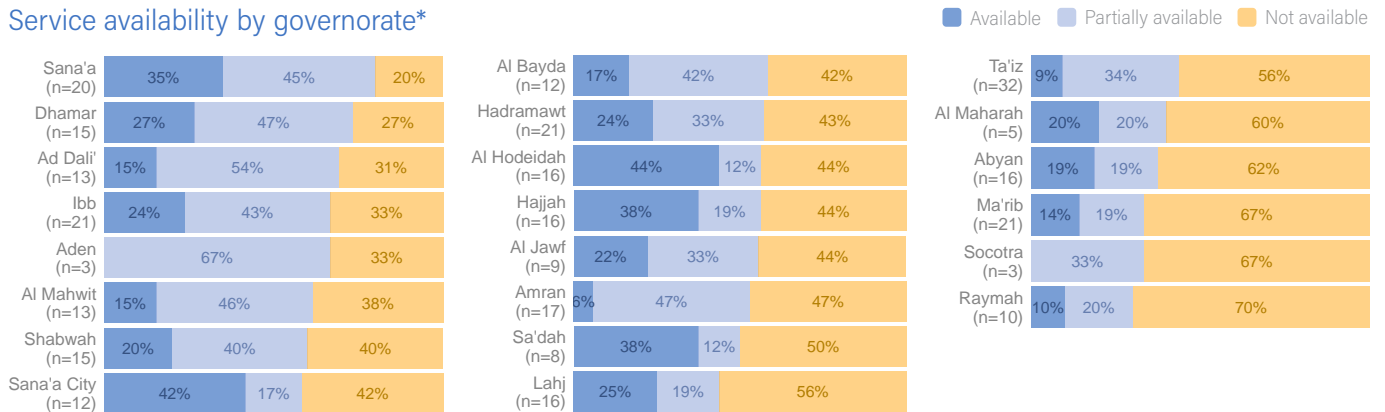
n = 245



## 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
SYNDROMIC SURVEILLANCE	Regular reporting sentinel site for syndromic surveillance of local relevant diseases/conditions	X	X	X	X	X
EVENT-BASED SURVEILLANCE	Immediate reporting of unexpected or unusual health events through an event-based surveillance system	X	X	X	X	X
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			X	X	X
VECTOR CONTROL	Support vector control interventions (distribution of impregnated bed nets, in/outdoor insecticide spraying, distribution of related IEC materials)				X	X
SUPPORT MASS DRUG ADMINISTRATION	Mobilize communities and support mass drug administration/treatment campaigns			X	X	X
TUBERCULOSIS	Diagnosis and treatment of tuberculosis cases, or detection and referral of suspected cases, and follow-up			X	X	X
MULTIDRUG-RESISTANT TUBERCULOSIS	Diagnosis, management, and follow-up of multi-drug-resistant TB patients	X				
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	X	X	X	X	X
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	X	X	X		
MANAGEMENT OF SEVERE AND/OR COMPLICATED COMMUNICABLE DISEASES	For example: measles with pneumonia, cerebral malaria, etc.	X	X	X		
ISOLATION UNIT OR ROOM	Isolation unit or room for patients with highly infectious diseases	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
<b>TOTAL</b>	<b>31,888,698</b>

