

# HeRAMS Annual Report

January - December 2018

Public Hospitals in the Syrian Arab Republic



World Health  
Organization

# HeRAMS Annual Report

January - December 2018

## Public Hospitals in the Syrian Arab Republic

World Health Organization  
Health Resources and Services Availability Monitoring System  
Syrian Arab Republic



World Health  
Organization

This is to acknowledge that the data provided in this report is a product of joint collaboration between the World Health Organization, Ministry of Health, and Ministry of Higher Education in the Syrian Arab Republic. The report covers the months of January to December 2018.

© World Health Organization 2018

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. 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.

**Suggested citation.** [Title]. Cairo: WHO Regional Office for the Eastern Mediterranean; 2018. Licence: CC BY-NC-SA 3.0 IGO.

**Sales, rights and licensing.** To purchase WHO publications, see <http://apps.who.int/bookorders>. To submit requests for commercial use and queries on rights and licensing, see <http://www.who.int/about/licensing>.

**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 the World Health Organization 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 the World Health Organization 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 the World Health Organization 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 the World Health Organization be liable for damages arising from its use.

# Contents

Introduction	1
Executive summary	1
1. Completeness of hospitals reporting	3
2. Functionality and accessibility of the public hospitals	4
2.1 Functionality status of the public hospitals	4
2.2 Density of the public hospitals	7
2.3 Accessibility to public hospitals	8
3. Infrastructure patterns of the public hospitals	10
3.1 Level of damage of the hospitals' buildings	10
3.2 Analysis of the inpatient capacity	14
3.3 Water sources and functionality status	15
3.4 Availability of electricity generators	17
4. Availability of health human resources	18
4.1 Availability of medical staff by category and affiliation	21
4.2 Availability of medical doctors by affiliation (MoH vs. MoHE hospitals)	23
4.3 Availability of medical doctors by gender (MoH vs. MoHE hospitals)	25
5. Availability and utilization of the health services	26
5.1 General clinical services	29
5.2 Surgical and trauma care	31
5.3 Maternal health services	37
5.4 Child health	40
5.5 Nutrition	41
5.6 Communicable diseases services	42
5.7 NCDs (non-communicable diseases)	43
5.8 Rehabilitation services	46
5.9 Mental health	47
6. Availability of medical equipment	48
7. Availability of medicines & medical supplies	50
8. Conclusions and recommendations	51

# Abbreviations

<b>CEmOC</b>	Comprehensive Emergency Obstetric Care
<b>CS</b>	Caesarean Sections
<b>DoH</b>	Directorate of Health
<b>ESKD</b>	End Stage Kidney Disease
<b>HeRAMS</b>	Health Resources & Services Availability Monitoring System
<b>HIS</b>	Health Information System
<b>HRP</b>	Humanitarian Response Plan
<b>ICT</b>	Information and Communication Technology
<b>ICU/ CCU</b>	Intensive Care Unit / Critical Care Unit
<b>IDPs</b>	Internally Displaced People
<b>MoH</b>	Ministry of Health
<b>MoHE</b>	Ministry of Higher Education
<b>NCDs</b>	Non-communicable Diseases
<b>OCHA</b>	United Nations Office for the Coordination of Humanitarian Affairs
<b>WHO</b>	World Health Organization

## Introduction

HeRAMS is a global health information management tool (for mapping, collection, collation and analysis of information on health resources and services) that aims to provide timely, relevant and reliable information for decision-making. It is used to guide interventions at the primary and secondary care levels, measure gaps and improve resource planning, ensure that actions are evidence-based, and enhance the coordination and accountability of WHO and other health sector partners.

HeRAMS in Syria is a World Health Organization (WHO) project that aims at strengthening the collection and analysis of information on the availability of health resources and services in Syria at health facility level. A team of national health staff from all governorates was formulated for HeRAMS reporting, and different data collection mechanisms were introduced to address the shortage of timely and relevant information. The main HeRAMS tool for collecting data is a questionnaire that assesses the functionality status, accessibility, health infrastructure, human resources, availability of health services, equipment and medicines at primary and secondary care level.

## Executive summary

Regular assessment to monitor the impact of the crisis on the health facilities functionality, accessibility, condition status, availability of resources and services, has been conducted using HeRAMS (Health Resources & services Availability Monitoring System) tool. The report provides descriptive and trend analysis for the situation of public hospitals in all 14 governorates of Syria [including Ministry of Health (MoH) and Ministry of Higher Education (MoHE) hospitals (a total of 111 hospitals)].

Despite the challenging security situation and protracted crisis, in addition to the wide disruption of the Health System, implementation of HeRAMS has been successfully institutionalized and strengthened in public health facilities during 2014 and 2018.

**Completeness of hospitals' reporting** remained 100%, where all 98 (MoH) hospitals and 13 (MoHE) hospitals reported to HeRAMS by end of December 2018.

### **Functionality status of the public hospitals**

By the end of December 2018, and out of the 111 assessed public hospitals [MoH & MoHE], 52% (58) were reported fully functioning, 24% (27) hospitals were reported partially functioning (i.e., shortage of staff, equipment, medicines or damage of the building in some cases), while 23% (26) were reported non-functioning.

### **Accessibility status of the public hospitals**

By the end of December 2018, 73% (81) hospitals were reported accessible, 7% (8) hard-to-access, and 20% (22) were inaccessible.

### Infrastructure of the public hospitals

By the end of December 2018, 45% (50) hospitals were reported damaged [11% fully damaged and 34% partially damaged], while 55% (61) of public hospitals were reported intact.

Analysis on **inpatient capacity** in functional hospitals has shown shortage of beds at varying degrees, across all governorates.

Assessing the availability of **water sources** at functional public hospitals indicated that 35% (30) are using main pipelines, 9% (8) are mainly using wells, 52% (44) are using both (main pipeline and well), while 4% (3) are using other sources of water.

**Electricity power** is widely disrupted nationwide and majority of public hospitals are dependent on generators' power. According to HeRAMS assessment 31% (26) of functional public hospitals across Syria are in need for electrical generators, mainly reported from 12 governorates: Quneitra, Deir-ez-Zor, Al-Hasakeh, Aleppo, Hama, Ar-Raqqa, As-Sweida, Rural Damascus, Damascus, Tartous, Dar'a, Homs.

### Human resources for health

The general practitioner (0.2%) and emergency physician (0.4%) were the lowest proportion of health staff in public hospitals, followed by dentists (0.8%), pharmacists (0.8%), midwives (4.9%), laboratory (5.6%), specialists (13.4%), resident doctors (20.2%), and nurses (53.8%).

Trend analysis of available number of **medical doctors** and nurses during 2018 has shown slight increase. In functional public hospitals the number of medical doctors [general practitioner, specialists, emergency doctors, resident doctors, dentists] has increased by 6% in December 2018 compared to January 2018, similarly the number of **nurses** and number of **midwives** has increased by 4% and 2%, respectively.

Analysis of proportions of **medical doctors** [general practitioner, specialists, emergency doctors, resident doctors, dentists] working at MoHE hospitals versus MoH hospitals has shown that 28% of medical doctors work in MoHE, while 72% are in MoH hospitals.

Analysis of availability of medical doctors by gender has shown that lowest proportions of female to male medical doctors are in Ar-Raqqa, Al-Hasakeh, Quneitra, and Deir-ez-Zor governorates.

### Availability and utilization of health services

As a result of disrupted healthcare delivery and non-functionality of the hospitals, limited provision of health services was observed across governorates, even within functional hospitals. Detailed analysis on services' availability and utilization throughout 2018 by category (i.e., General Clinical Services, Surgical and Trauma care, Child Health, Nutrition, Maternal & Newborn Health, Communicable Diseases, Non-communicable Diseases, and Mental Health) is provided at governorate level.

### Availability of medical equipment

Analysis of availability of essential and specialized equipment was measured across all functional public hospitals [MoH & MoHE], in terms of functional equipment out of the total available equipment in the hospital. The produced analysis provides good indication of the current readiness of the hospitals to provide the health services, and also to guide focused planning for procurement and distribution of equipment and machines, to fill-in identified gaps that were observe even within the functional public hospitals.

### Availability of medicines and medical supplies

Availability of medicines and medical supplies at hospitals' level was evaluated based on a standard list of identified priority medicines and medical supplies for duration of one month.

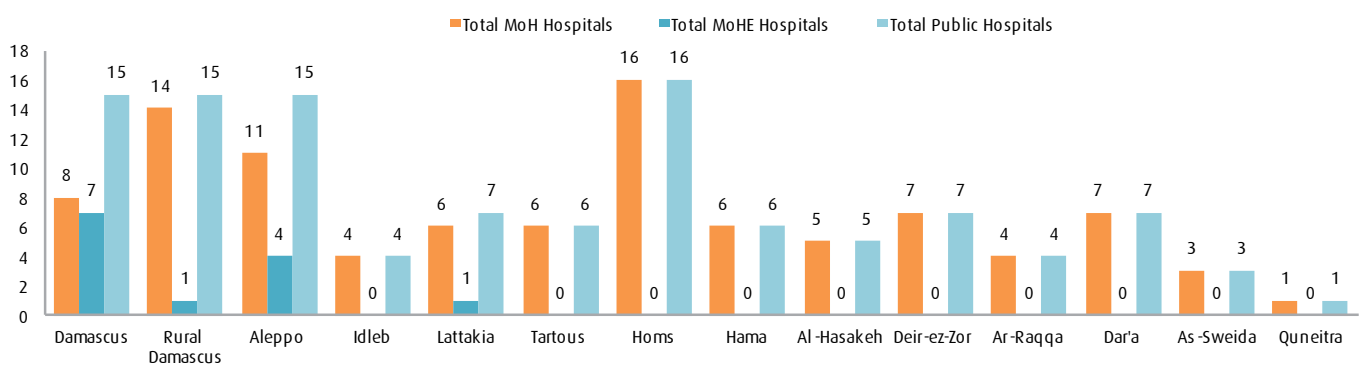
The key identified gaps of medicines and consumables at functional hospitals include the: Tetanus shot (83%), Cancer related medicines (81%), Hepatitis vaccine (78%), Psychotropic medicines (73%), etc.

## 1. Completeness of hospitals reporting

The completeness of reporting from public hospitals across Syria remained at 100%, where all the 98 Ministry of Health (MoH) Hospitals and the 13 Ministry of Higher Education (MoHE) hospitals continued to report to HeRAMS in December 2018.

The distribution of public hospitals by affiliation [MoH & MoHE], per governorate is shown in Figure 1.

Figure 1: Distribution of public hospitals by affiliation, per governorate



The following sections provide descriptive and trend analysis on the functionality status, accessibility, and infrastructure of the public hospitals, availability of resources & services, and available equipment and medicines by the end of December 2018.

The provided analysis supports informed decision making, better planning and allocation of resources, and contributes to significant and focused humanitarian response by WHO and health sector partners.



## 2. Functionality and accessibility of the public hospitals

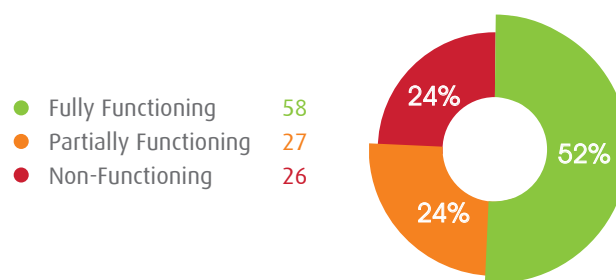
The following sub-sections provide analysis on the functionality and accessibility status of the public hospitals at governorate level.

### 2.1 Functionality status of the public hospitals

Functionality of the public hospitals was defined and assessed at three levels;

- **Fully functioning:** a hospital is open, accessible, and provides healthcare services with full capacity (i.e., staffing, equipment, and infrastructure).
- **Partially functioning:** a hospital is open and provides healthcare services, but with partial capacity (i.e., either shortage of staffing, equipment, or damage in infrastructure).
- **Non-functioning:** a hospital is out of service, because it is either fully damaged, inaccessible, no available staff, or no equipment.

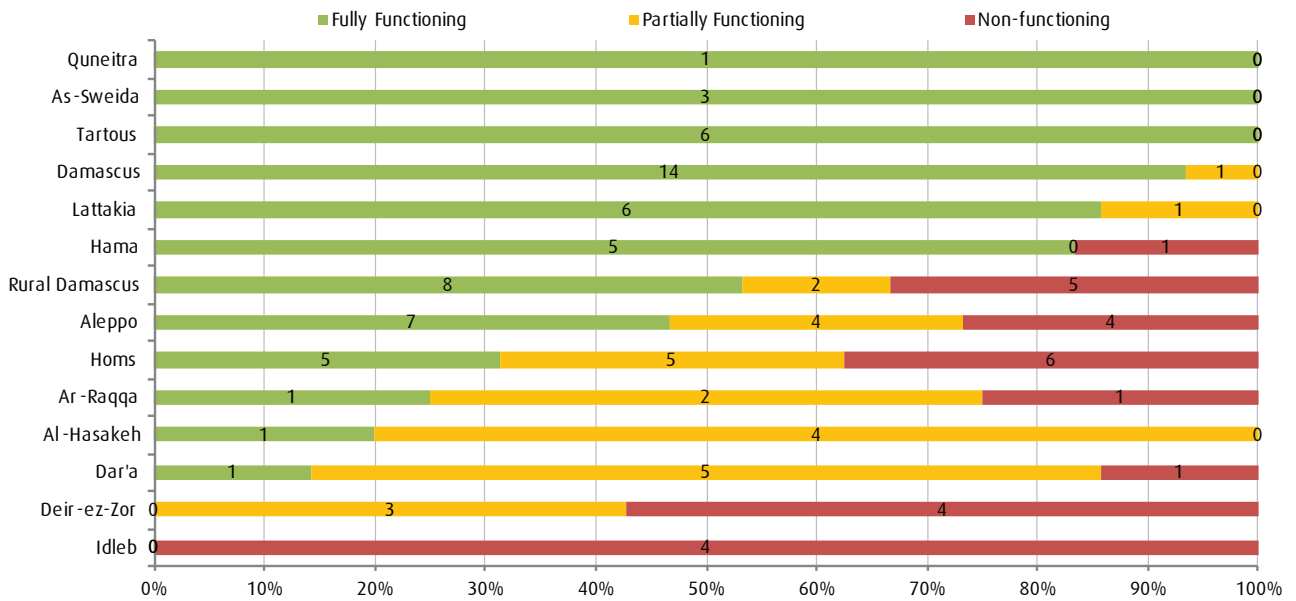
Figure 2: Functionality status - December 2018



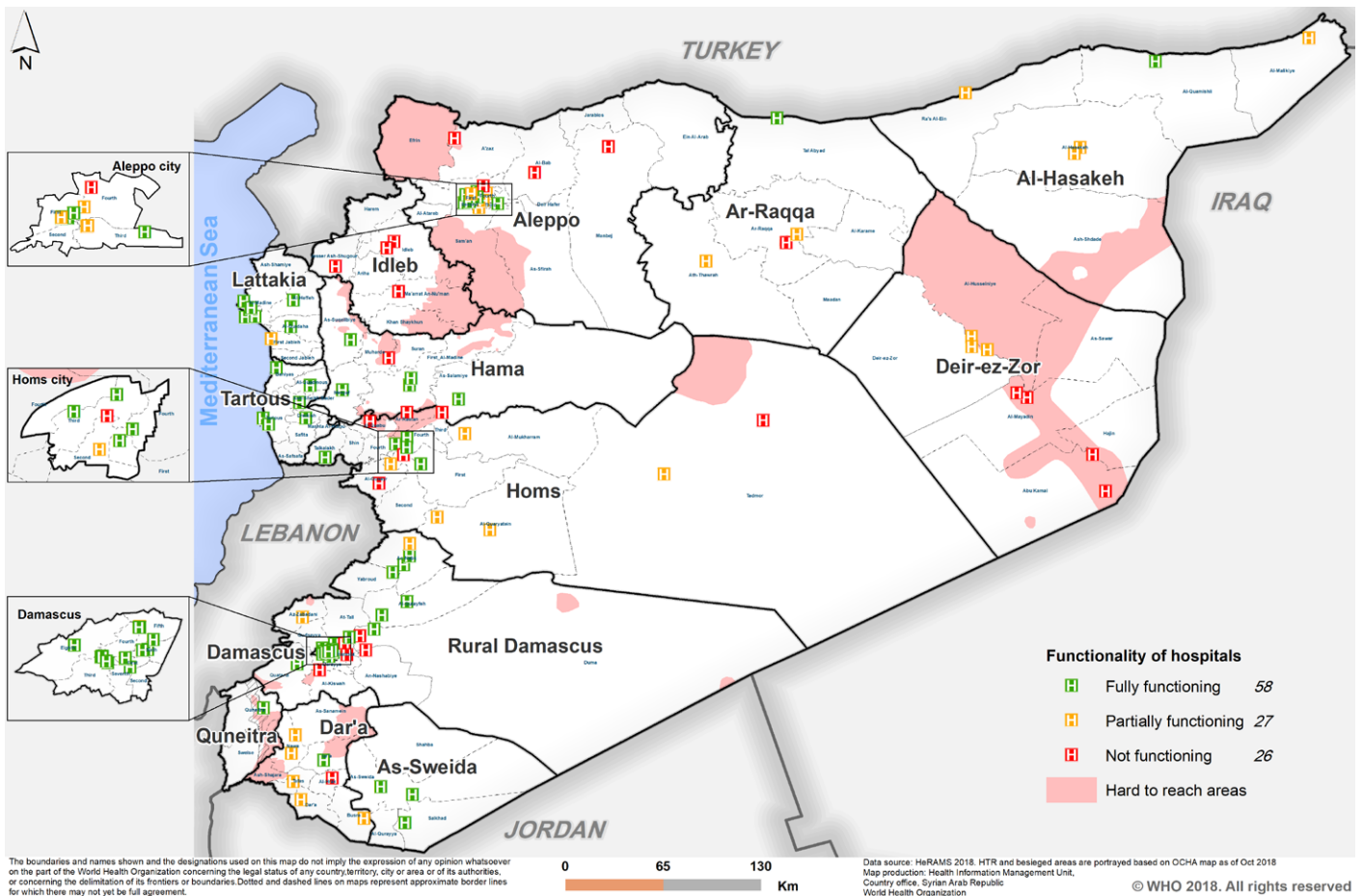
By the end of December 2018, and out of the 111 assessed public hospitals [MoH & MoHE], 52% (58) were reported fully functioning, 24% (27) hospitals were reported partially functioning, while 24% (26) were reported non-functioning [Figure 2].

The hospitals reported partially functioning or non-functioning are in 11 out of a total 14 governorates (79% of governorates). Detailed analysis on the functionality status of the MoH and MoHE hospitals at governorate level is presented in [Figure 3] and [Map 1]. All public hospitals in Idleb were reported out of service.

Figure 3: Number and percentage of the public hospitals by functionality status, per governorate, December 2018

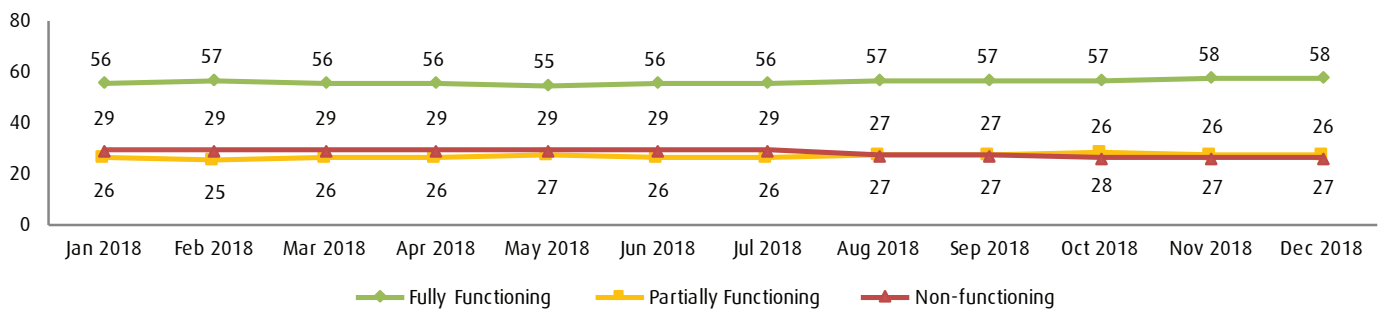


Map 1: Distribution and functionality status of public hospitals, December 2018

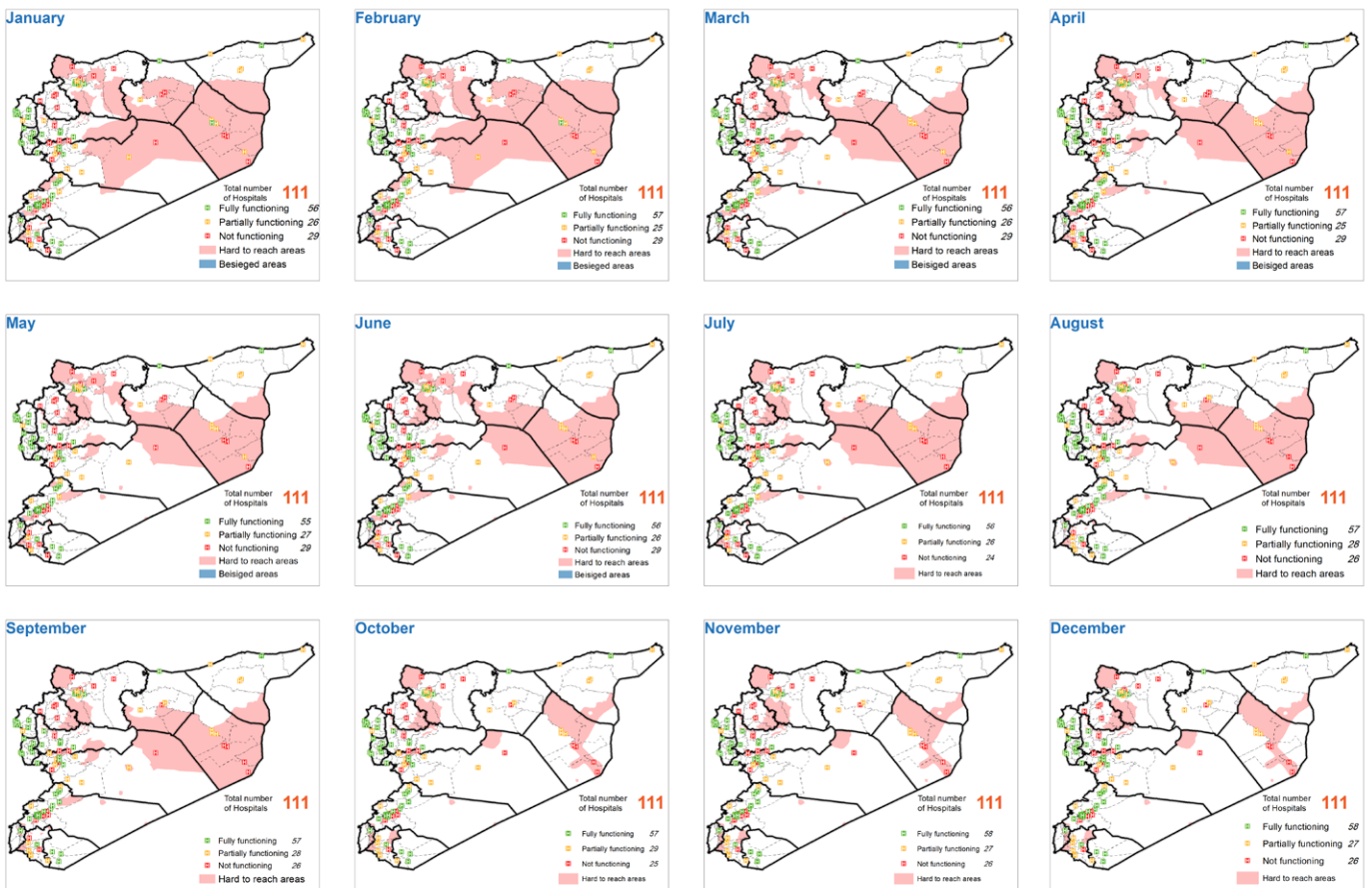


Slight variation of functionality status of public hospitals has been observed during 2018 [Figure4].

Figure 4: Trend analysis of functionality status of public hospitals, January to December 2018



Map 2: Trend analysis of functionality status of public hospitals, January to December 2018

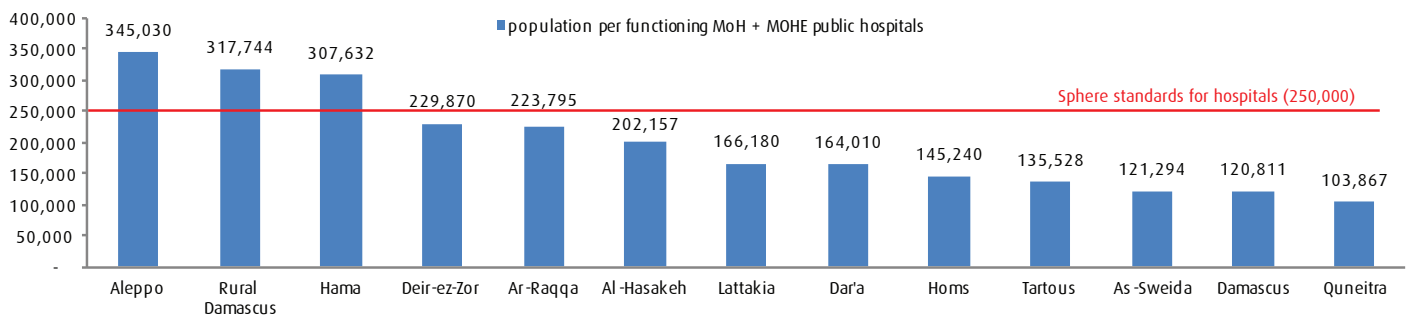


The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its borders or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

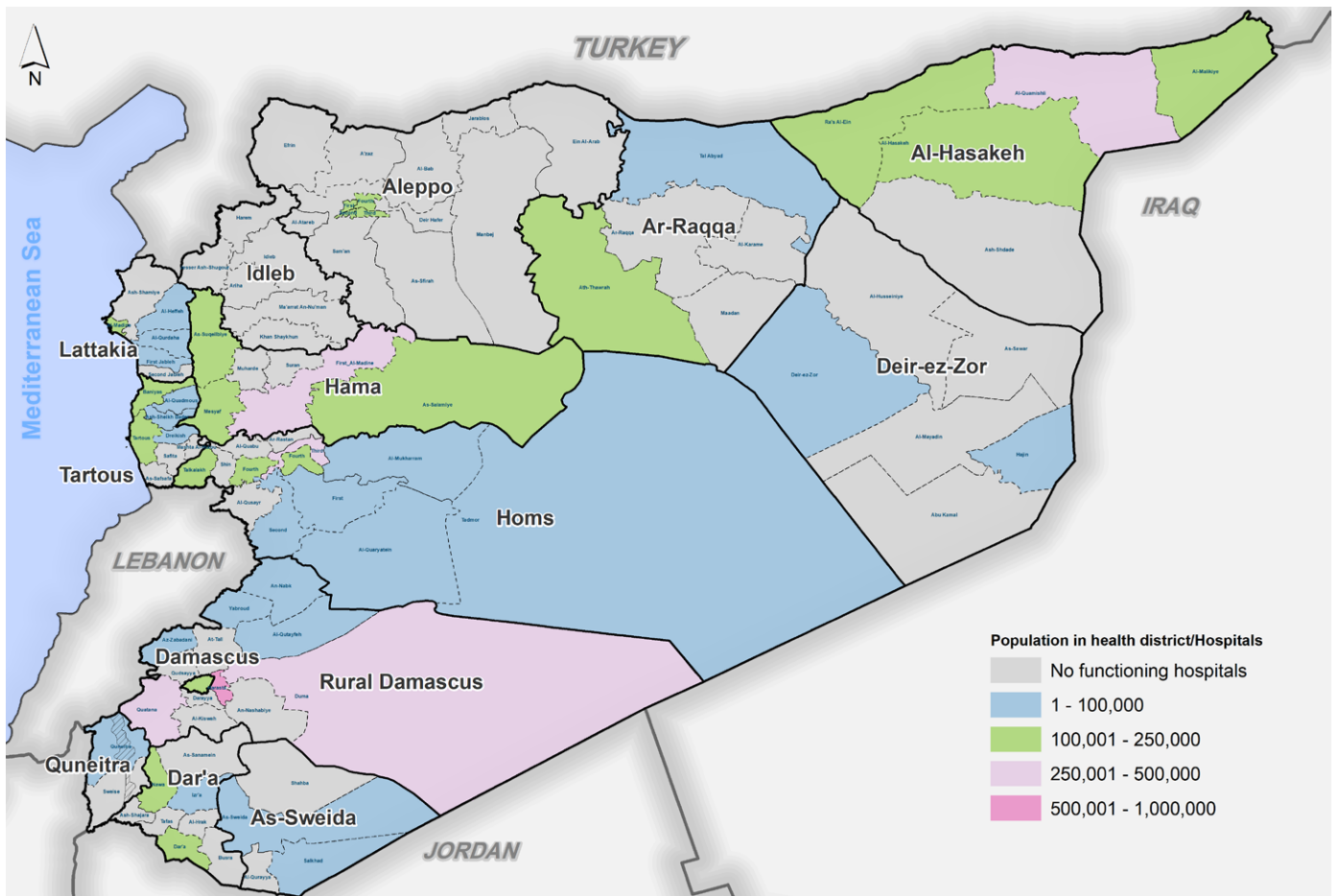
## 2.2 Density of the public hospitals

Hospitals density reflects the total number of hospitals relative to population size (based on OCHA HRP 2019), which helps measure physical access to outpatient health care services. Comparing with Sphere standards for hospitals (250,000), four governorates (Aleppo, Rural Damascus, and Hama) are over the standard density reference; due to high number of population against the available functioning public hospitals [Figure 5] and Map 3.

Figure 5: Density of the public hospitals per governorate, December 2018



Map 3: Density of the public hospitals per governorate, December 2018



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization 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 and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

0 70 140 Km

Data source: HeRAMS 2018, HNO 2019  
Map production: Health Information Management Unit,  
Country office, Syrian Arab Republic  
World Health Organization

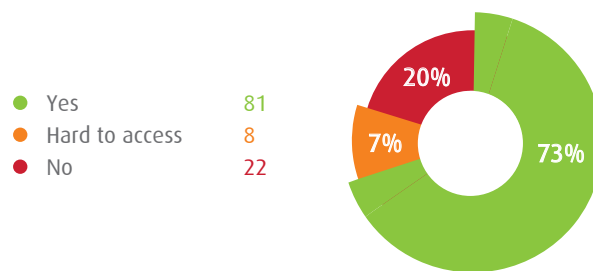
© WHO 2018. All rights reserved

### 2.3 Accessibility to public hospitals

Accessibility to public hospitals is defined at three levels:

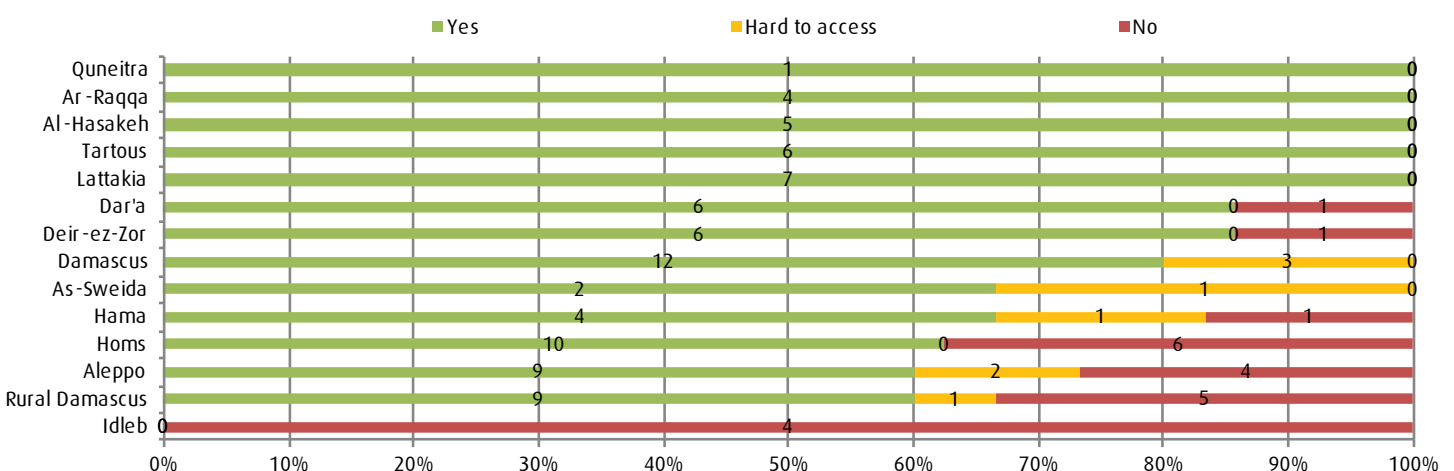
- **Accessible:** a hospital is easily accessible for patients and health staff.
- **Hard-to-reach:** a hospital is hardly reached, due to security situation or long distance.
- **Inaccessible:** a hospital is not accessible because of the security situation, or a hospital is accessible only to a small fraction of the population, or military people (inaccessible to civilians).

Figure 6: Accessibility status - December 2018

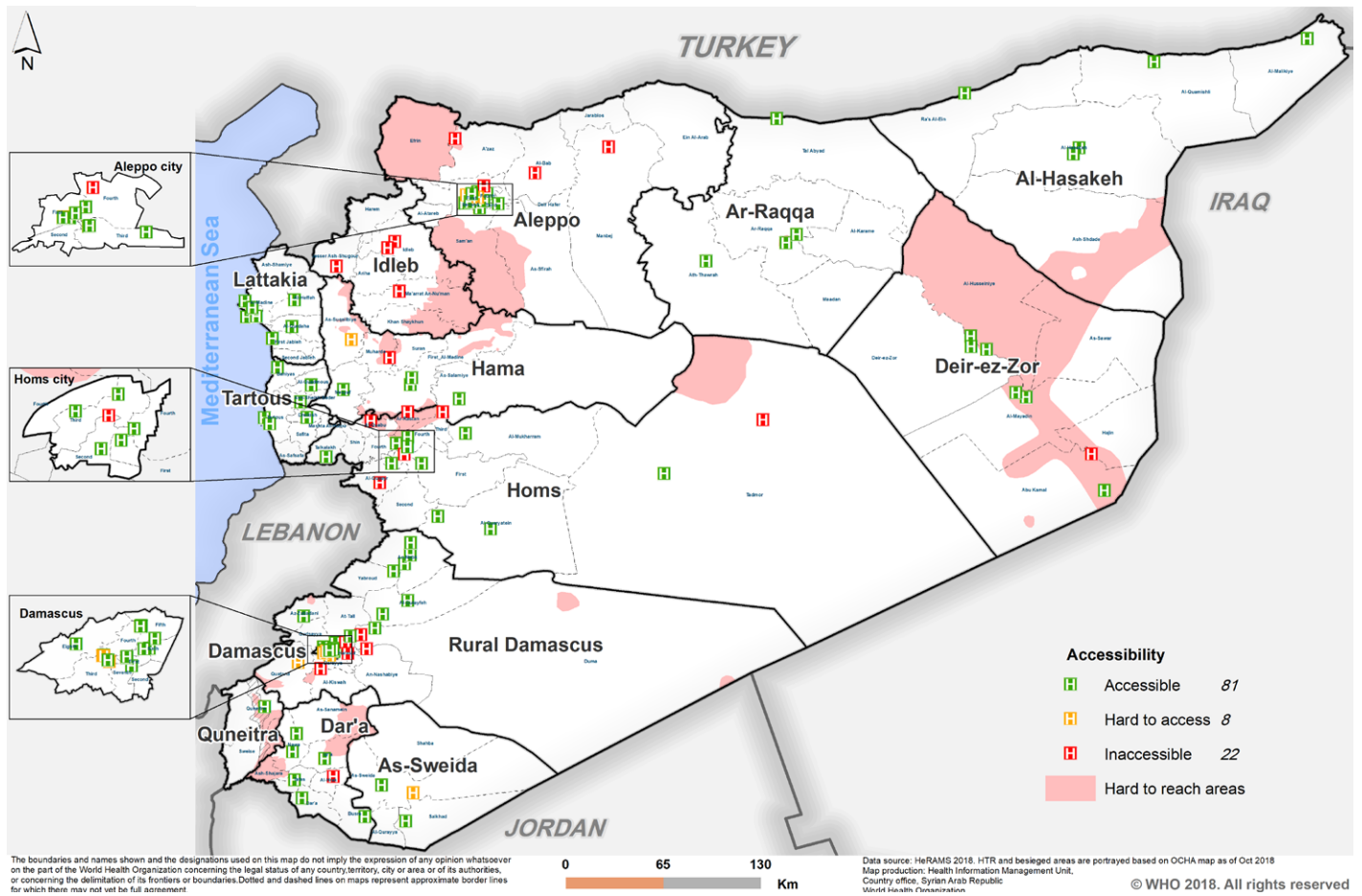


By the end of December 2018, 73% (81) hospitals were reported accessible, 7% (8) hard-to-access, and 20% (22) were inaccessible [Figure 6]. Distribution of public hospitals by accessibility status is presented in Map 4, while more details are provided at governorate's level in Figure 7.

Figure 7: Accessibility status of the public hospitals per governorate, December 2018

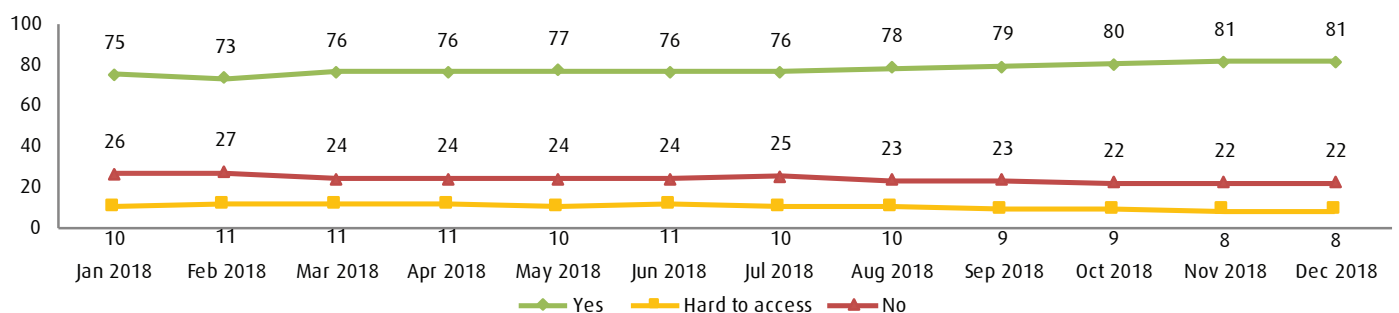


Map 4: Accessibility to public hospitals [MoH & MoHE], December 2018



Trend analysis on accessibility to public hospitals [MoH & MoHE] from January to December 2018, is presented in Figure 8.

Figure 8: Trend analysis of accessibility to public hospitals, January to December 2018





### 3. Infrastructure patterns of the public hospitals

The following sub-sections provide analysis on the infrastructure patterns of the public hospitals, in terms of building condition, inpatient capacity, water sources, availability of ambulances, and electricity generators, all summarized at governorate level.

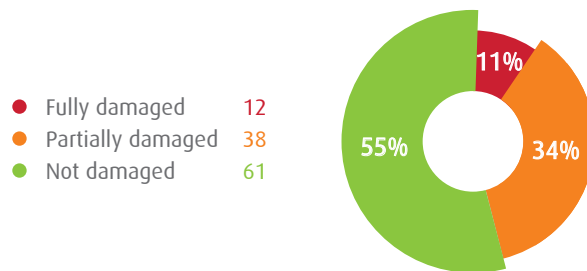
#### 3.1 Level of damage of the hospitals' buildings

The level of damage to hospital buildings was measured at three levels:

- **Fully damaged:** either, all the building is destroyed, about 75% or more of the building is destroyed, or damage of the essential services' buildings.
- **Partially damaged:** where part of the building is damaged.
- **Intact:** where there is no damage in the building.

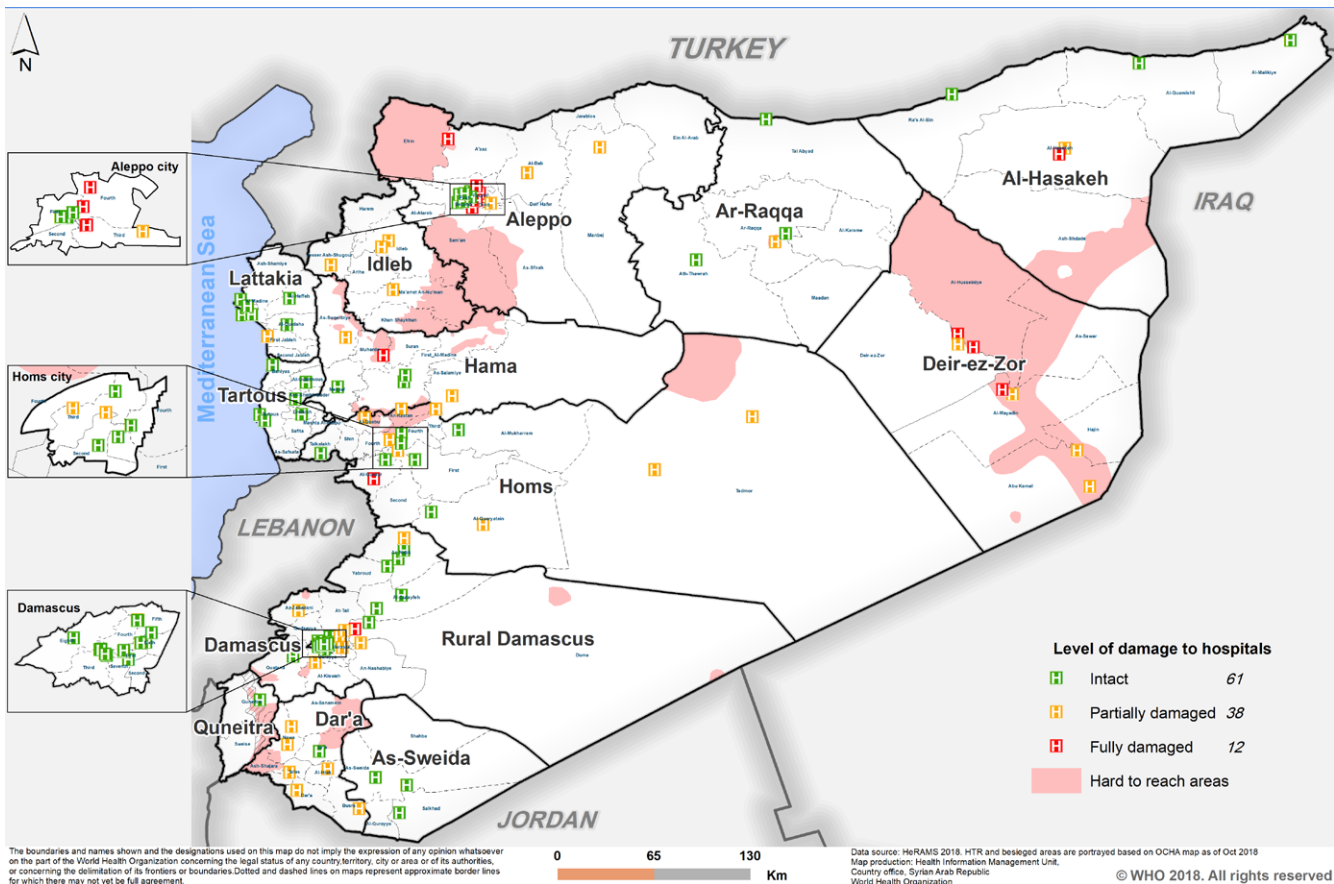
Analysis of the level of damage provides good indication on the potential costs for reconstruction.

Figure 9: level of damage - December 2018



By the end of December 2018, 45% (50) hospitals were reported damaged [11% fully damaged and 34% partially damaged], while 55% (61) of public hospitals were reported intact [Figure 9]. Distribution of public hospitals by level of damage is presented in Map 5, while more details are provided at governorate's level in Figure 10.

Map 5: Level of Damage of the Hospitals' buildings, by governorate [MoH & MoHE], December 2018



It is essential to cross-analyze the infrastructural damage of the public hospitals in relation to the functionality status (i.e. provision of services). Some hospitals have resiliently continued to provide services regardless of the level of damage of the building and by optimizing intact parts of the building or in a few cases operating from other neighboring facilities. The national figures translate as follows:

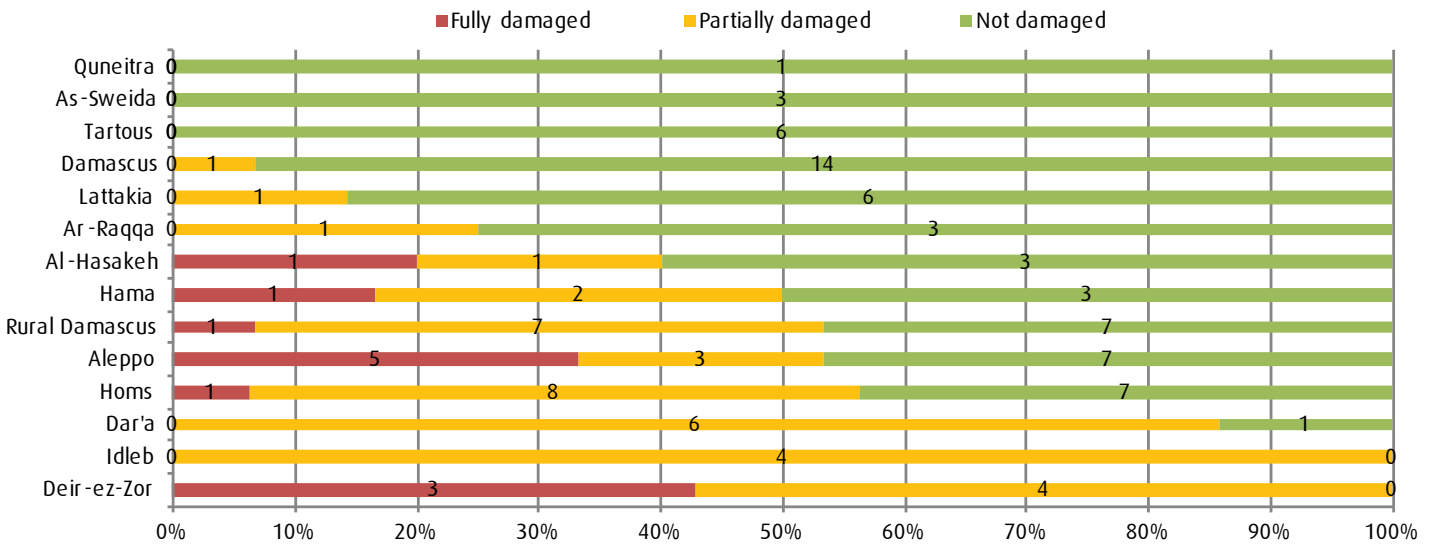
Out of the **38 partially damaged hospitals**, 13 hospitals were reported partially functioning and 20 out of service (non-functioning), while 4 hospitals (Ophthalmology hospital in Homs, and Ebn Khaldoun Psychiatric hospital in Aleppo, As-Salameyeh National hospital in Hama, and As-Suqailbeyeh National hospital in Hama) were reported to be fully functioning providing all services with full staffing capacity.

Out of the **12 fully damaged hospitals**, 6 were reported non-functioning while 6 hospitals have opted for innovative ways to continue providing health services to populations in need through partially functioning from other nearby temporary locations and provide health services with limited staff capacity and resources. More details of the 6 hospitals are available in the HeRAMS database.

Then again, hospitals with **intact buildings (61 hospitals)** does not directly reflect full functionality, only 54 of the 61 intact hospitals are fully functioning, while 8 are partially functioning, and one hospital is not functioning, due to limited access of patients and health staff to the facilities resulting from the dire security situation as well as critical shortage of supplies.

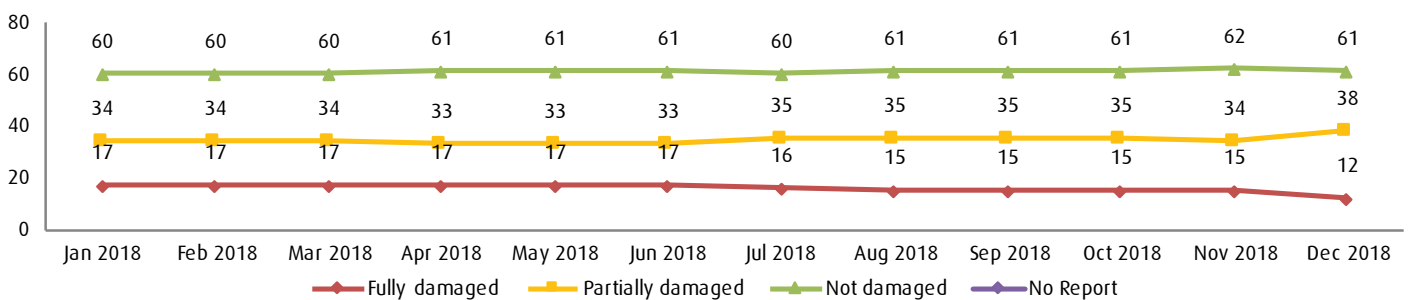


Figure 10: Number and percentage of the public hospitals by level of damage, per governorate, December 2018



Trend analysis on condition of the public hospitals (level of damage of the building) from January to December 2018 is presented in Figure 11.

Figure 11: Trend analysis of public hospitals' level of damage, January to December 2018



The tables below list the hospitals, which reported fully damaged (buildings), in addition to the list of hospitals that are operating from different location (s) given that the original building is fully damaged or partially damaged.

Table 1: The list of hospitals with reported fully damaged buildings

#	Hospital Name	Province	District	Affiliation
1	Rural Damascus specialized hospital – Duma	Rural Damascus	Duma	MoH
2	Zahi Azraq general hospital	Aleppo	The fourth	MoH
3	E'zaz national hospital	Aleppo	E'zaz	MoH
4	Ophthalmology hospital	Aleppo	Third	MoH
5	Children hospital	Aleppo	Third	MoH
6	Al-Qusayr general hospital	Homs	Al-Qusayr	MoH
7	Helfaya hospital	Hama	Muhardeh	MoH
8	Children hospital	Al-Hasakeh	Al-Hasakeh	MoH
9	Children and Obstetrics hospital	Deir-ez-Zor	Deir-ez-Zor	MoH
10	Alfurat general hospital	Deir-ez-Zor	Deir-ez-Zor	MoH
11	Modern Medicine hospital	Deir-ez-Zor	Al-Mayadin	MoH
12	Al-Kindi university hospital	Aleppo	The fourth	MoHE

Table 2: Special cases of hospitals which reported fully damaged (buildings), and operating partially from other locations

#	Hospital name	Province	District	Type	Condition	Affiliation	New location
1	Zahi Azraq general hospital	Aleppo	The fourth	General	Fully damaged	MoH	Ar-Razi hospital
2	Ophthalmology hospital	Aleppo	Third	Specialized	Fully damaged	MoH	Ar-Razi hospital + Al-Bassel Heart Institute
3	Children hospital	Aleppo	Third	Specialized	Fully damaged	MoH	Ar-Razi hospital + Maternity hospital
4	Children hospital	Al-Hasakeh	Al-Hasakeh	Specialized	Fully damaged	MoH	New medical center in Al-hasakah
5	Maternity and Paediatric specialized hospital	Deir-ez-Zor	Deir-ez-Zor	Specialized	Fully damaged	MoH	Al-Assad hospital
6	Alfurat general hospital	Deir-ez-Zor	Deir-ez-Zor	Specialized	Fully damaged	MoH	Al-Assad hospital

Table 3: Special cases of hospitals which reported partially damaged (buildings), and operating partially (limited provided health services) from other locations

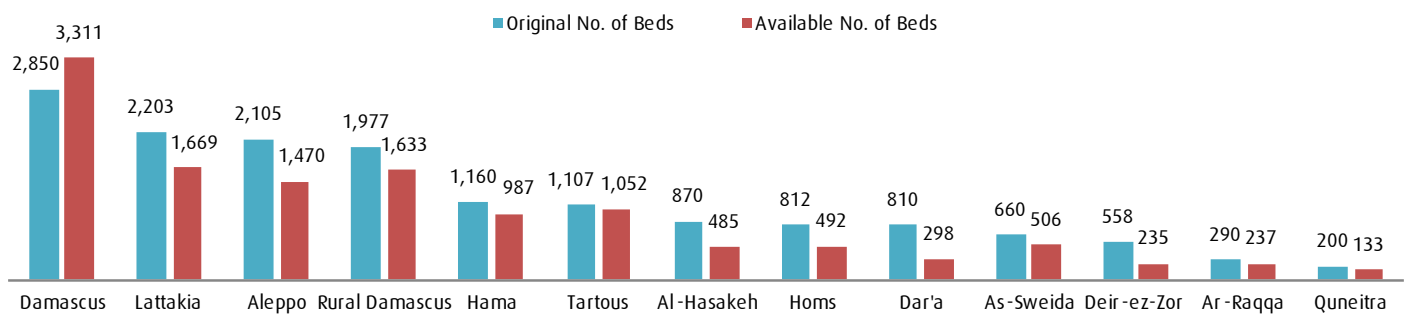
#	Hospital name	Province	District	Type	Condition	Affiliation	New location
1	Al-Bassel-Qara hospital	Rural Damascus	Al-Nabak	General	Partially damaged	MoH	Qara Municipal

The information above could guide focused rehabilitation activities for hospitals' infrastructure, which could improve functionality status of hospitals to reach fully functional level, especially for partially functional hospitals that need small scale of rehabilitation.

### 3.2 Analysis of the inpatient capacity

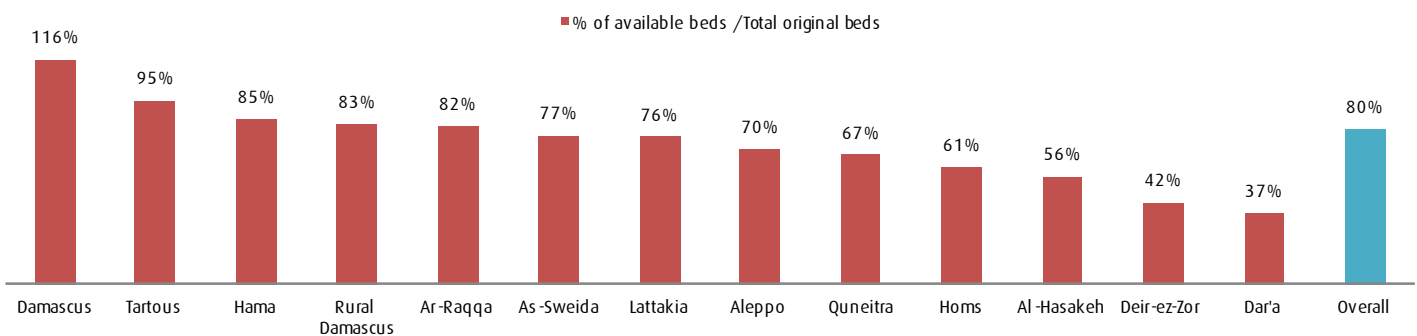
The inpatient capacity has been analyzed in terms of the total number of beds available in functional hospitals by end of 2018 compared to the original number of beds in these hospitals pre-crisis or the maximum inpatient capacity) [Figure 12].

Figure 12: Comparison of inpatient capacity (original vs. available) in functional hospitals per governorate, December 2018



Reduced inpatient capacity (shortage of beds) was observed in all governorates at varying degrees. This may be correlated to the upsurge in usage of beds in functional hospitals, as direct implication of the crisis on the overstretched public health sector. The number 116% in Damascus illustrates that some hospitals have expanded their operational capacity to meet the increase needs of provision health services. Figure 13 illustrates the proportion of available beds in functional hospitals versus the original inpatient capacity at governorate levels.

Figure 13: Percentage of available number of beds in functional hospital versus the original inpatient capacity, December 2018



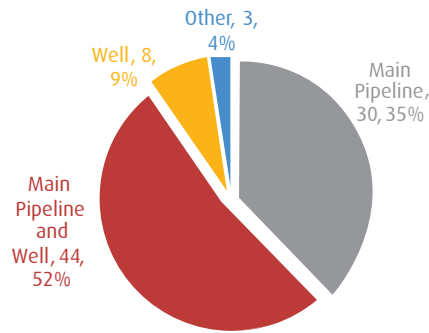
The lowest percentage (37%) of available beds in functional hospital versus original inpatient capacity is observed in Dar'a governorate, mainly reported from Jassem hospital, Nawa hospital, and the national hospital.

### 3.3 Water sources and functionality status

Availability of water sources at public hospitals was assessed using a standard checklist of main types of water sources (i.e., main pipeline, well, or both (main pipeline and well)).

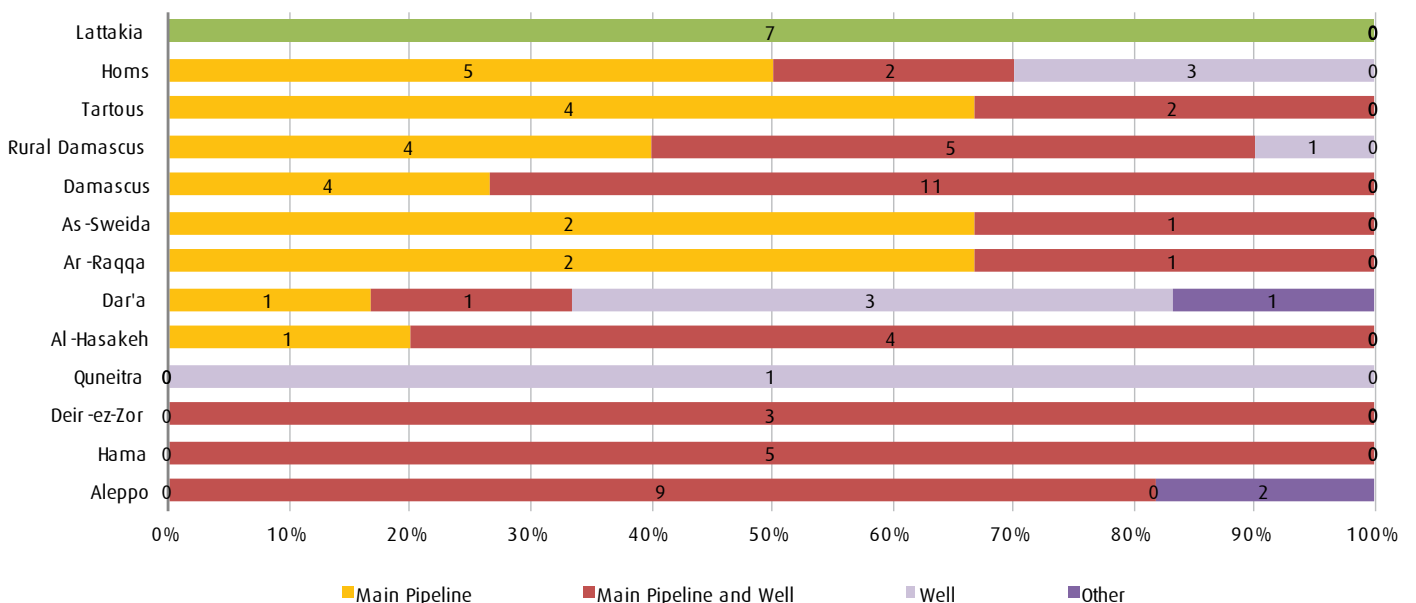
By the end of December 2018 and out of 85 functional public hospitals, 35% (30) are using main pipelines, 9% (8) are mainly using wells, 52% (44) are using both (main pipeline and well), while 4% (3) are using other sources of water [Figure 14].

Figure 14: Main sources of water, December 2018



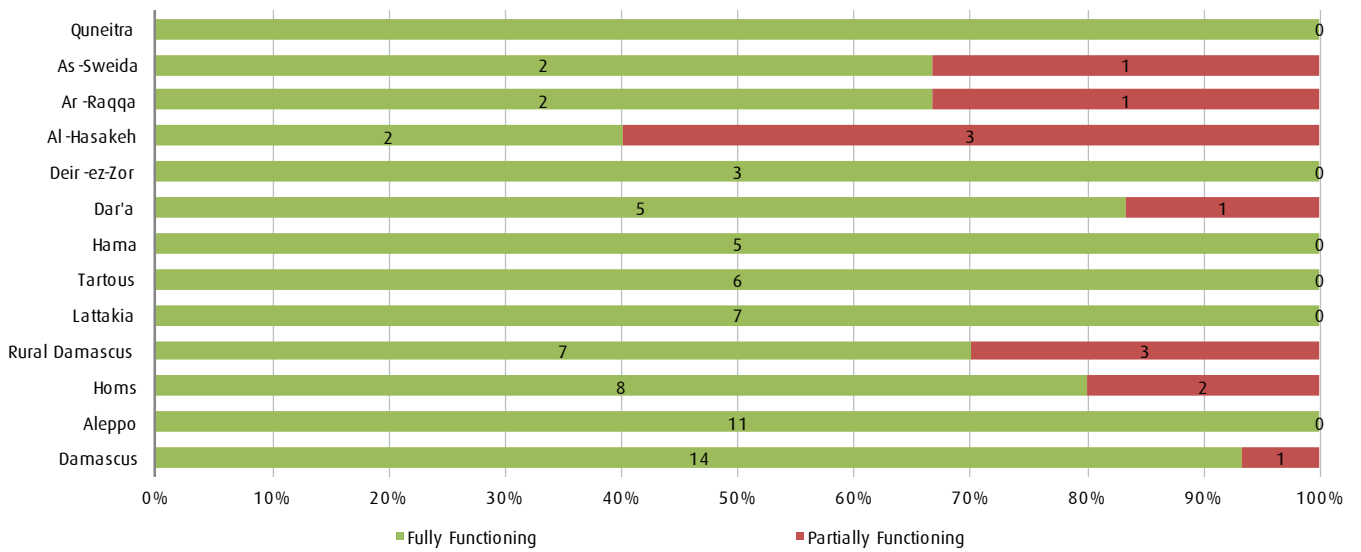
Detailed analysis on distribution of water sources at functional public hospitals is presented at governorate level on [Figure 15].

Figure 15: Distribution of water sources/ types at functional public hospitals, per governorate, December 2018



Detailed analysis on distribution of water sources at functional public hospitals is presented at governorate level on [Figure 15].

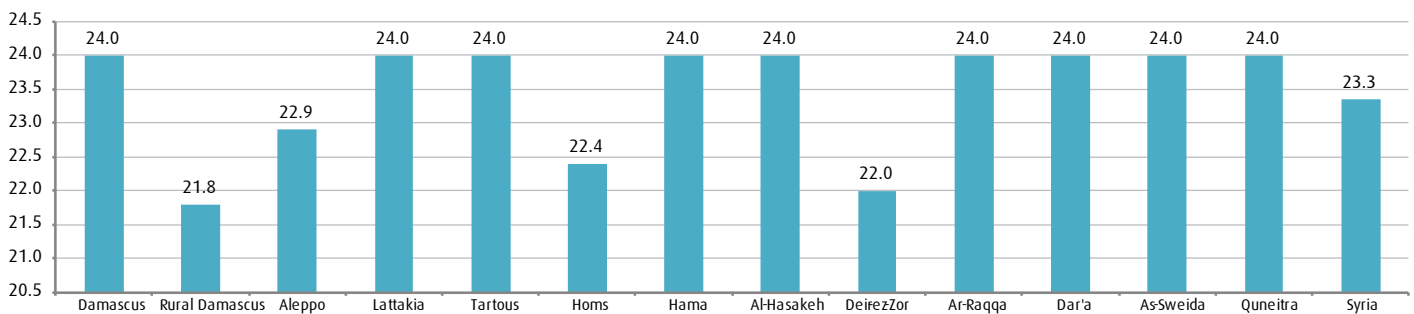
Figure 16: Functionality status of the water sources at functional public hospitals, December 2018



### 3.4 Availability of electricity generators

Availability of electricity generators continued to be highly demanded with the current situation, where electricity power is widely disrupted and majority of public hospitals are dependent on generators' power. Availability of electrical generators at functional hospitals was measured by assessing the functional out of the total existing generators in the hospital.

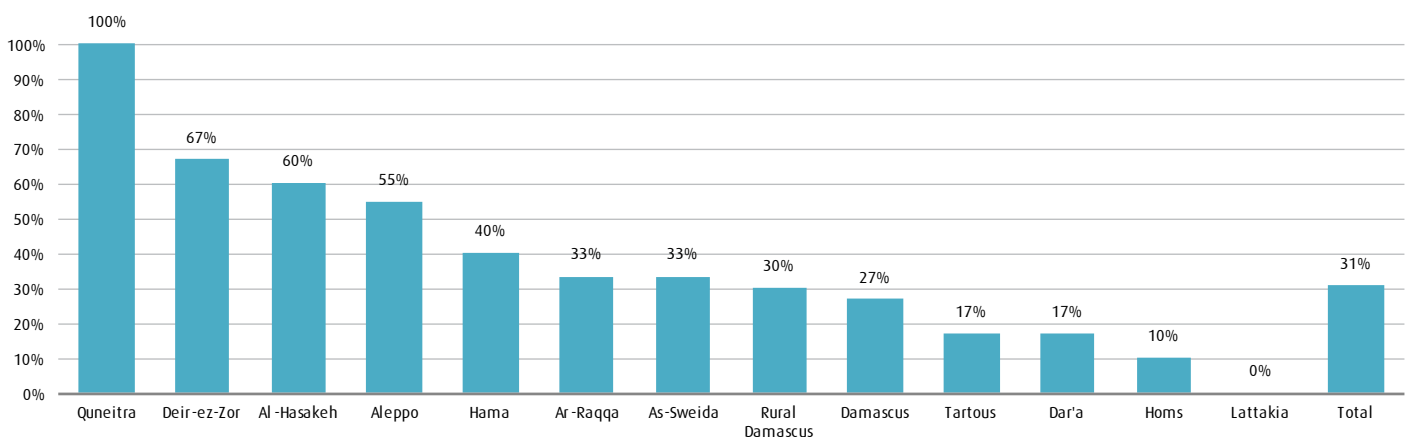
Figure 17: Hours of availability of electricity (from all sources) on average during the day in functional hospitals, December 2018



The percent of hospitals in need for electricity generators out of the total functional hospital is summarized at governorate level [Figure 18].

31% (26) of functional public hospitals across Syria are in need for electrical generators, mainly reported from 12 governorates: Quneitra, Deir-ez-Zor, Al-Hasakeh, Aleppo, Hama, Ar-Raqqa, As-Sweida, Rural Damascus, Damascus, Tartous, Dar'a, Homs.

Figure 18: Percent of hospitals in need for generators out of total functional hospitals, December 2018

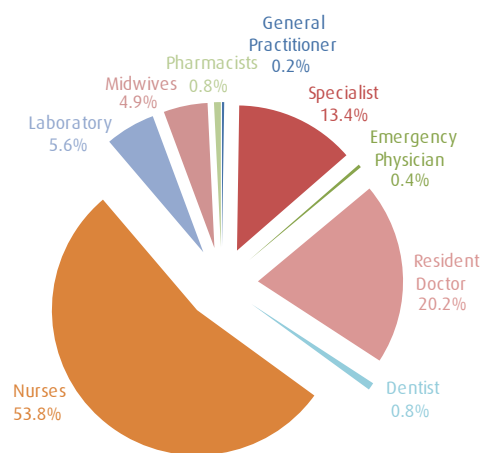


## 4. Availability of health human resources

Availability and trend of health human resources were analyzed across all public hospitals [MoH & MoHE] considering the following scopes:

- **Comparative and trend analysis** of medical staff by category (i.e., doctors, nurses, midwives)
- **Trend analysis of availability** of medical doctors by affiliation; MoH vs. MoHE hospitals
- **Trend analysis** of availability of medical doctors by **gender**, per governorate

Figure 19: Proportion of health staff in hospitals, December 2018



The proportion between different categories of health staff, among the total functional (fully and partially) MoH and MoHE hospitals (85/111), by the end of December 2018, is as follows: The general practitioner (0.2%) and emergency physician (0.4%) were the lowest proportion of health staff in public hospitals, followed by dentists (0.8%), pharmacist (0.8%), midwives (4.9%), laboratory (5.6%), specialists (13.4%), resident doctors (20.2%), and nurses (53.8%); [Figure 19].

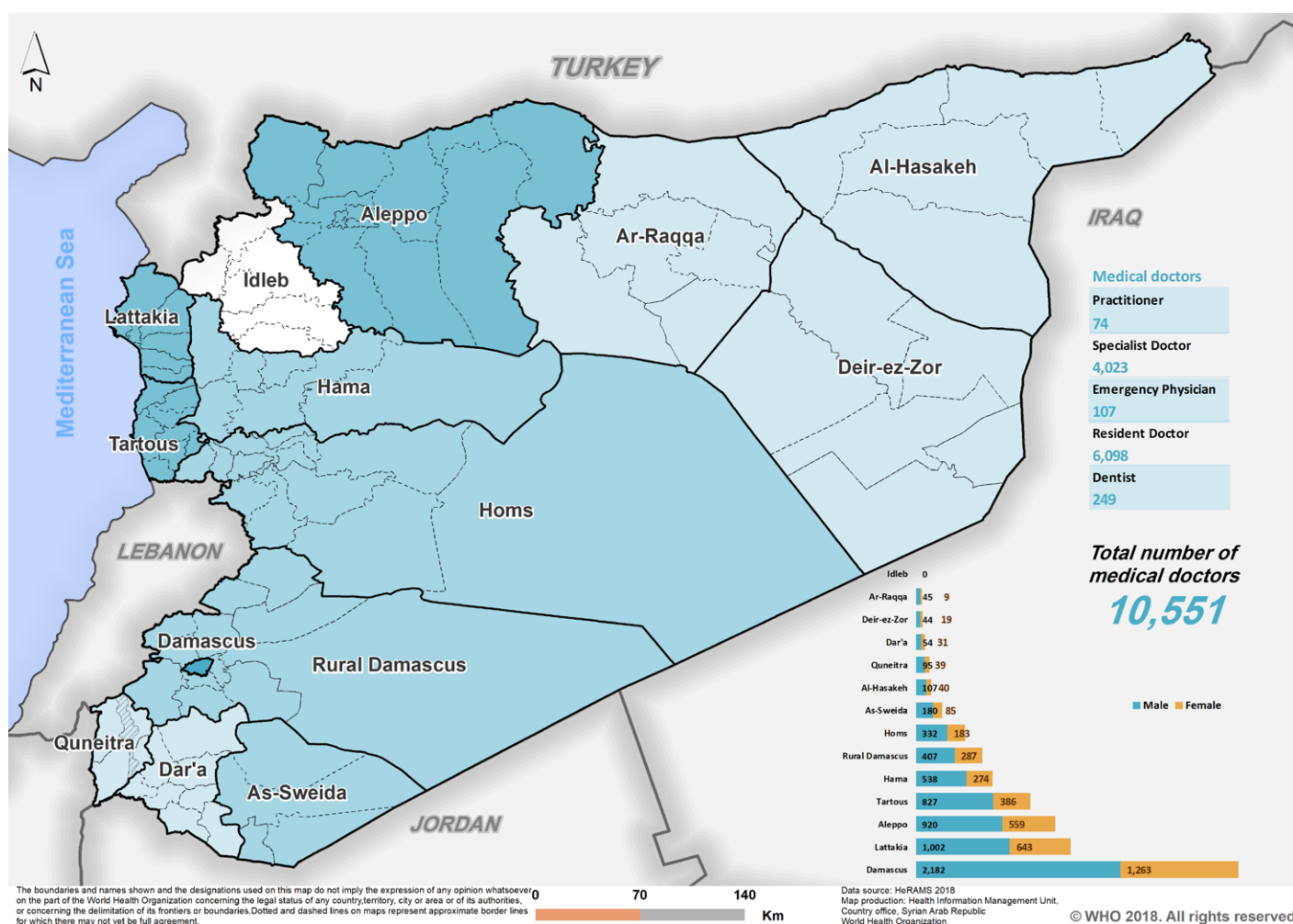
**Table 4: Availability of human resources of functioning public hospitals, per governorate, December 2018**

Governorate	General Practitioner	Orthopedic surgery	General surgery	Neurological surgery	Other Specialists	Emergency Physician	Resident Doctor	Dentist	Nurses	Laboratory	Midwives	Pharmacists	University	Technicians	Others
Damascus	0	44	61	18	835	17	2434	36	3667	402	151	81	546	1214	3030
Rural Damascus	11	22	28	4	228	4	390	7	1235	124	89	21	123	430	891
Aleppo	5	27	36	4	376	7	972	52	951	206	91	15	199	310	1028
Idleb															
Lattakia	5	39	48	8	519	22	956	48	2503	148	234	28	221	512	1118
Tartous	14	44	73	8	468	21	547	38	2367	245	114	34	241	1088	1491
Homs	15	31	46	5	244	14	139	21	1407	145	183	16	70	644	428
Hama	4	26	44	8	329	12	353	36	1468	160	227	13	131	743	851
Al-Hasakeh	2	6	7	2	73	1	54	2	342	50	52	5	33	152	145
Deir-ez-Zor	0	1	1	0	35	0	22	4	624	84	156	1	18	266	429
Ar-Raqqa	14	5	7	0	24	4	0	0	212	14	35	3	12	23	17
Dar'a	3	2	3	1	39	0	37	0	340	33	45	5	24	135	214
As-Sweida	1	8	14	2	114	2	123	1	970	57	89	3	71	302	468
Quneitra	0	3	3	3	47	3	71	4	112	8	13	3	12	79	225
<b>Grand Total</b>	<b>74</b>	<b>258</b>	<b>371</b>	<b>63</b>	<b>3331</b>	<b>107</b>	<b>6098</b>	<b>249</b>	<b>16198</b>	<b>1676</b>	<b>1479</b>	<b>228</b>	<b>1701</b>	<b>5898</b>	<b>10335</b>



The availability and level of medical staffing (by category and gender) in public hospitals a, as is summarized at governorate's level in Map 6. The categories of staff included in the map are: general practitioner, specialists, emergency doctors, resident doctors, dentists.

Map 6: Availability of medical doctors in functional public hospitals, by end of December 2018, per governorate



#### 4.1 Availability of medical staff by category and affiliation

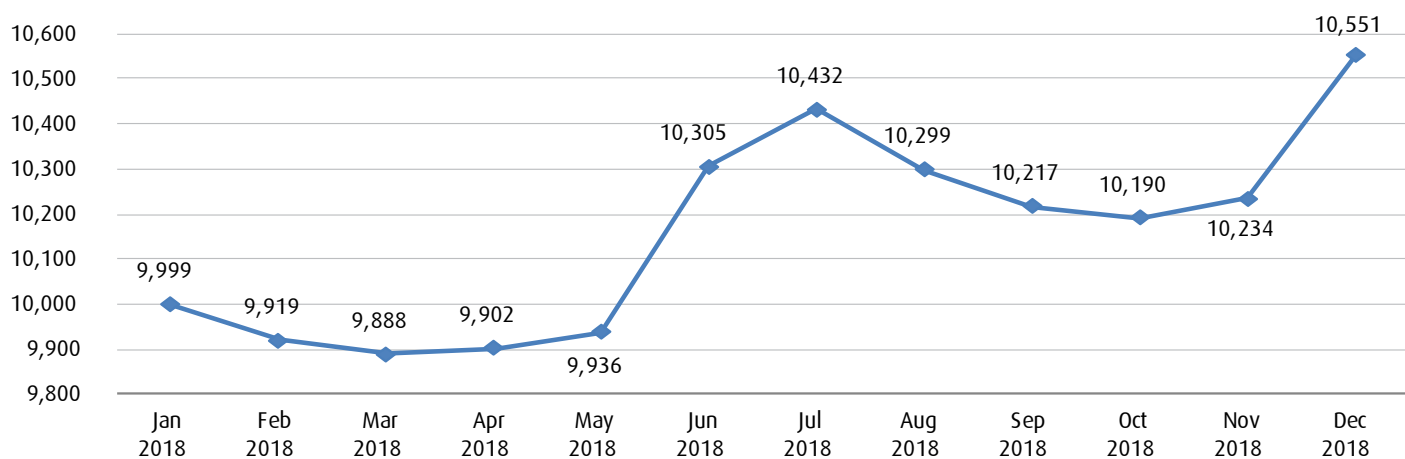
The availability medical staff in functional public hospitals is analyzed by category [i.e., medical doctors<sup>1</sup>, nurses, and midwives] and affiliation [MoH vs. MoHE hospitals], as follow:

##### i. Trend analysis of medical doctors [a total of general practitioner, specialists, emergency doctors, resident doctors, dentists]:

The number of medical doctors in public hospital has slightly increased by 6% in December 2018 (10,551 compared to January 2018 (9,999).

Figure [20] shows the trend analysis of reported medical doctors from January to December 2018, in functional public hospitals.

Figure 20: Trend analysis of number of doctors (a total of general practitioner, specialists, emergency physicians, resident doctors, and dentists) in public hospitals during 2018



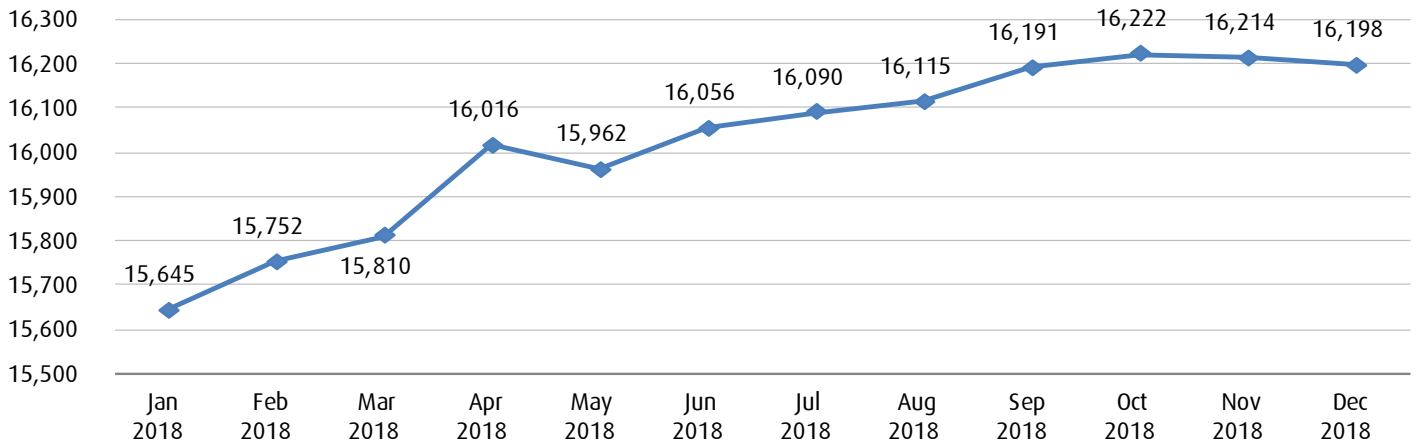
##### ii. Trend analysis of nurses:

The number of **nurses** in public hospital has slightly increased by 4% in December 2018 (16,198), compared to January 2018 (15,645).

Figure [21] shows trend analysis for the reported number of nurses from January to December 2018.

<sup>1</sup> A total of general practitioner, specialists, emergency doctors, resident doctors, and dentists

Figure 21: Trend analysis of number of nurses in public hospitals during 2018

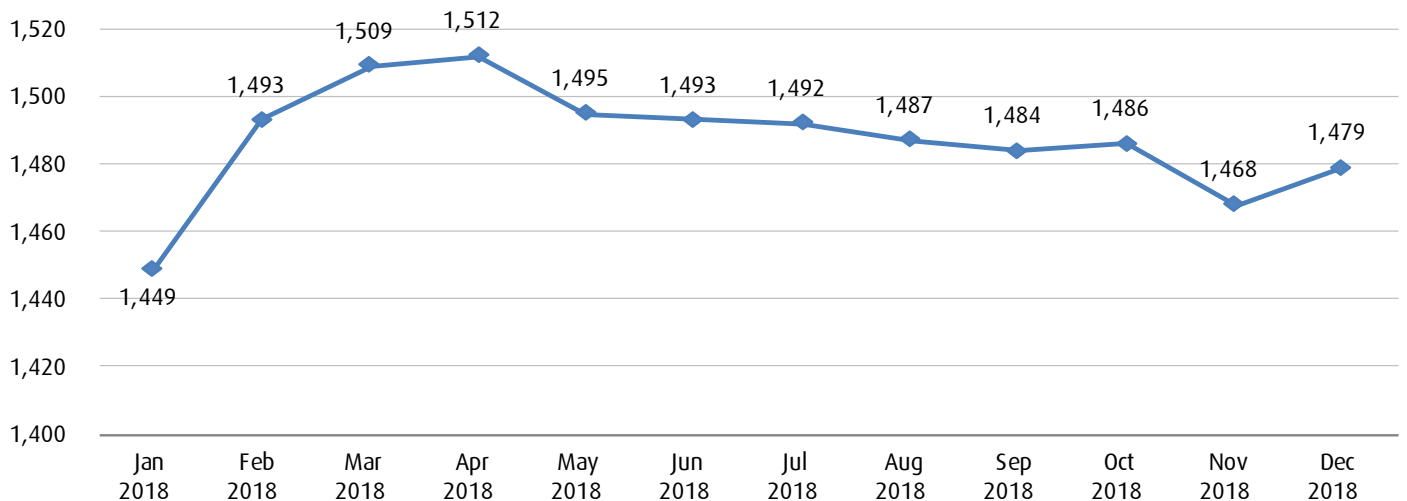


### iii. Trend analysis of midwives:

The number of **midwives** in public hospital has slightly increased by 2% in December 2018 (1,479), compared to January 2018 (1,449).

Figure [22] shows trend analysis for the reported number of midwives from January to December 2018.

Figure 22: Trend analysis of number of midwives in public hospitals during 2018

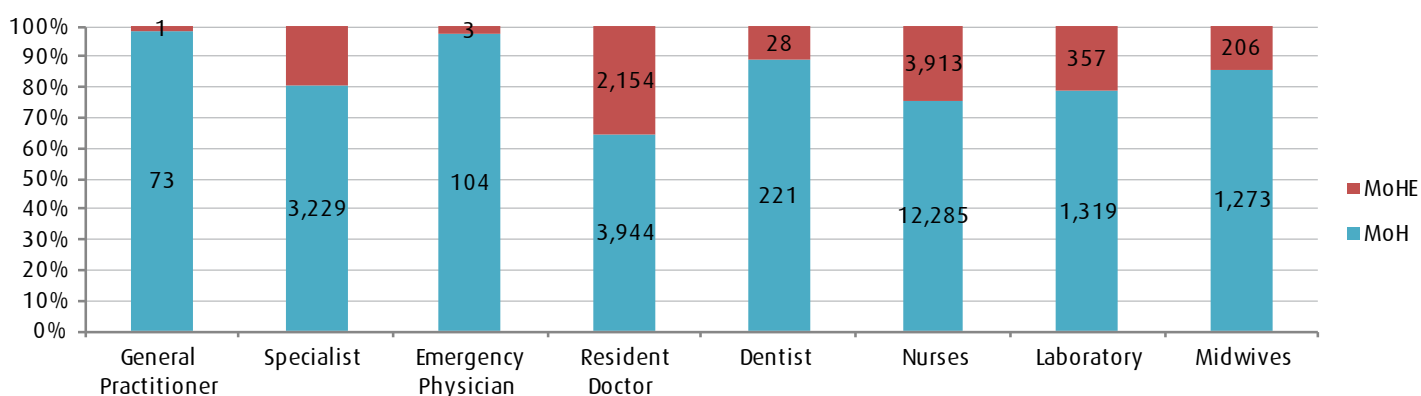


#### 4.2 Availability of medical doctors by affiliation (MoH vs. MoHE hospitals)

Analysis of **proportions of medical doctors** [general practitioner, specialists, emergency physician, resident doctors, dentists] working at MoHE hospitals versus MoH hospitals in December 2018 has shown that **28%** (2,980) of medical doctors (general practitioner, specialists, emergency physician, resident doctors, dentists) work in MoHE, while **72%** (7,571) are in MoH hospitals.

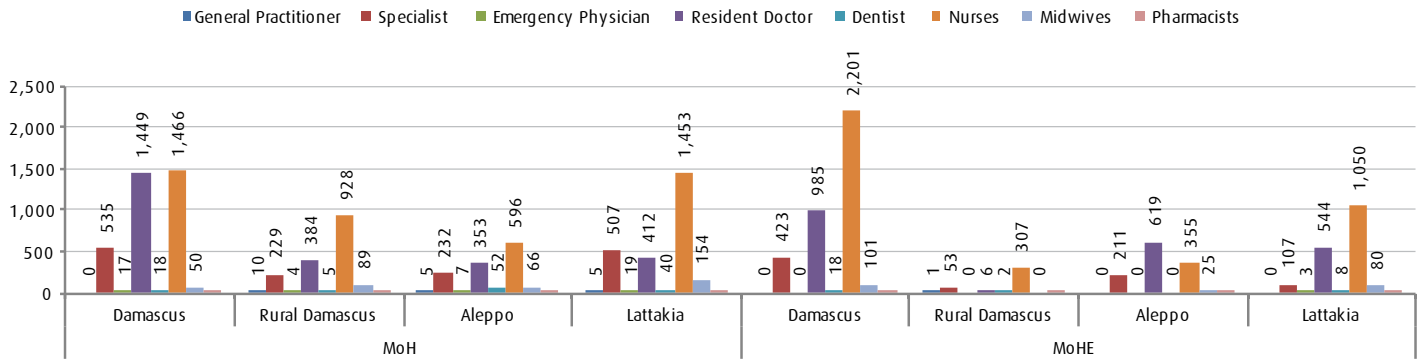
**1%** out of total general practitioner (74) work in public hospitals are in MoHE hospitals; **20%** out of total specialists (4,023) work in public hospitals are in MoHE hospitals; **3%** out of total emergency physician (107) work in public hospitals are in MoHE hospitals ; **35%** out of total resident doctors (6,098) are in MoHE hospitals; **11%** out of total dentist (249) work in public hospitals are in MoHE hospitals and **23%** out of total the nurses & midwives (17,677) are in MoHE hospitals. Details on proportions and numbers of key staff work in MoH vs. MoHE hospitals, by end of December 2018, are presented in [Figure 23].

Figure 23: Proportions and numbers of key staff work in MoH vs. MoHE hospitals, December 2018



However, MoHE hospitals are located in four governorates (Damascus, Rural Damascus, Aleppo, and Lattakia), they serve the whole country. A **comparison** between the total available medical-related staff in MoH vs. MoHE hospitals is shown in [Figure 24].

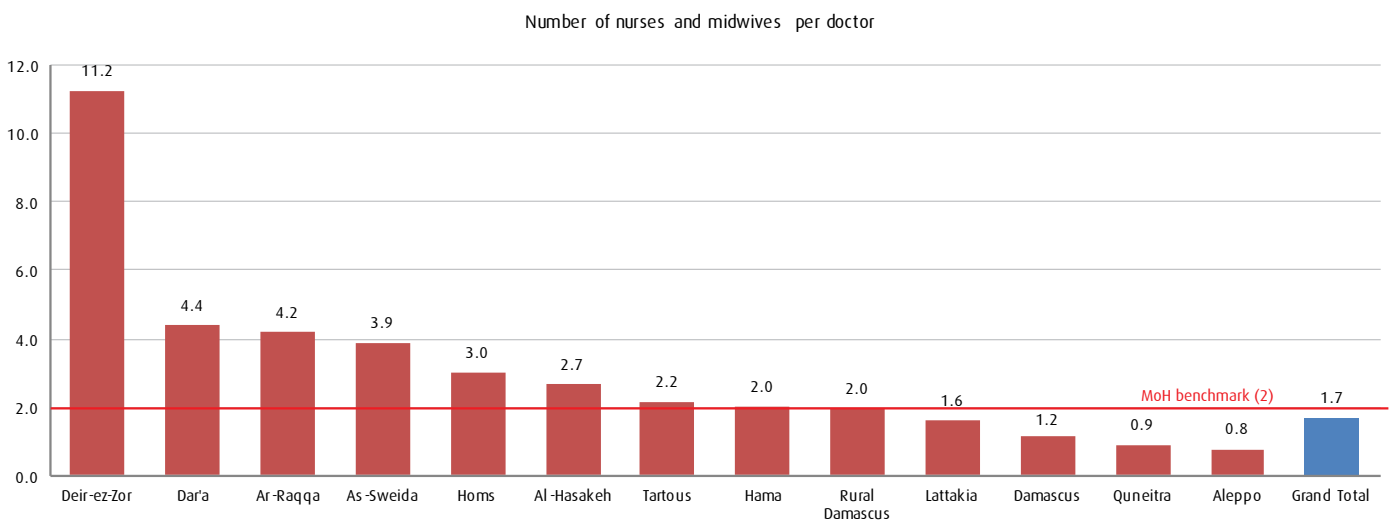
Figure 24: Comparison of the medical staff of MoH vs. MoHE hospitals, December 2018



The follow figure shows the number of nurses and midwives per doctor, given that the benchmark is at least 2 nurses and midwives for each doctor (MoH, 2011).

The national levels in addition to four governorates (Lattakia, Damascus, Quneitra, and Aleppo) are below or equal benchmark in [Figure 25].

Figure 25: Number of nurses and midwives per doctor in public hospitals, December 2018



### 4.3 Availability of medical doctors by gender (MoH vs. MoHE hospitals)

By analyzing the proportion of male to female doctors (a total of: general practitioner, specialists, emergency physician, resident doctors, dentists), lowest proportions are seen in Ar-Raqqa, Al-Hasakeh, Quneitra, and Deir-ez-Zor governorates [Figure 26].

Figure 26: Proportion of Doctors (a total of Specialists, Emergency Physicians, Resident Doctors, Dentists), by gender, per governorate, December 2018

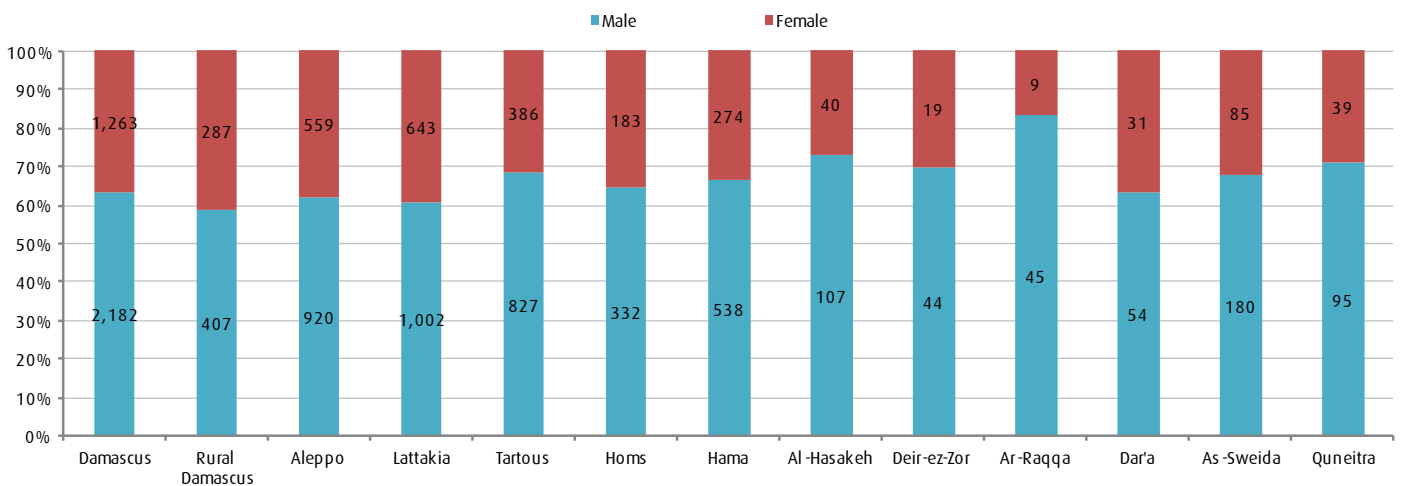
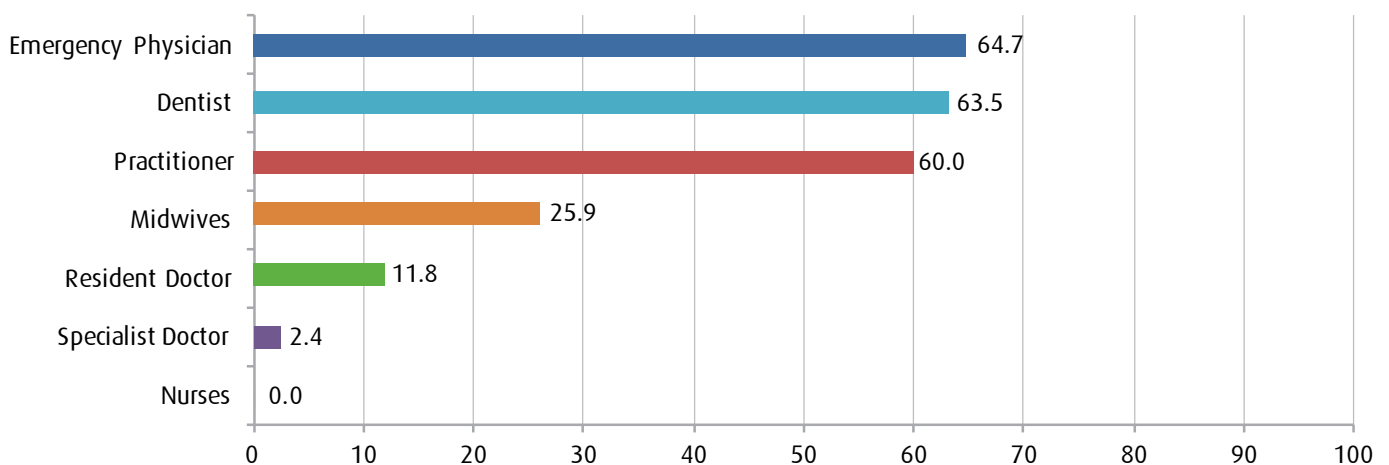


Figure 27: Percentage of functioning public hospitals without medical staff (gaps), December 2018

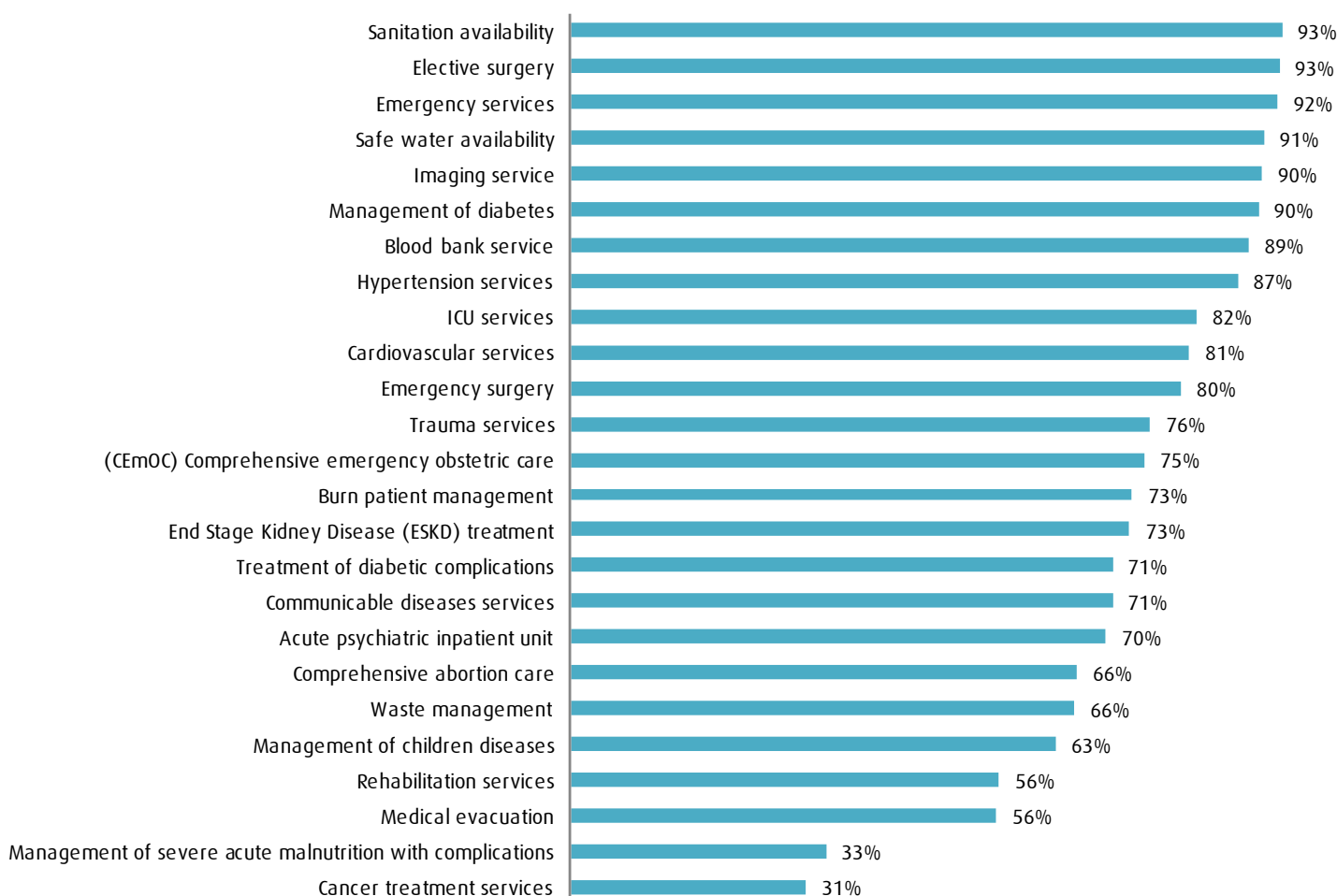


## 5. Availability and utilization of the health services

The availability of core healthcare services is monitored through HeRAMS at hospital's level, considering a standard list of health services (including: General Clinical Services, Surgical and Trauma care, Child Health, Nutrition, Maternal & Newborn Health, Communicable Diseases, Non-communicable Diseases, and Mental Health).

Analysis of availability of health services has been conducted across all functional public hospitals [MoH & MoHE]: (85/111). As a result of disrupted healthcare delivery and non-functionality of hospitals, limited provision of health services was observed across governorates, even within functional hospitals [Figure 28].

Figure 28: Availability of health services in the functional public hospitals, December 2018



\*\*Detailed information on availability of services per governorate is available in the HeRAMS database.

The workload and utilization of the health services were analyzed in terms of the total estimated serviced people in all functional public hospitals during January and December 2018 per governorate [Figure 29]. In 2018, the total estimated caseload in functional public hospitals is 7,244,199.

Figure 29: Estimated caseload of functional public hospitals (outpatient consultations and emergency cases), January to December 2018

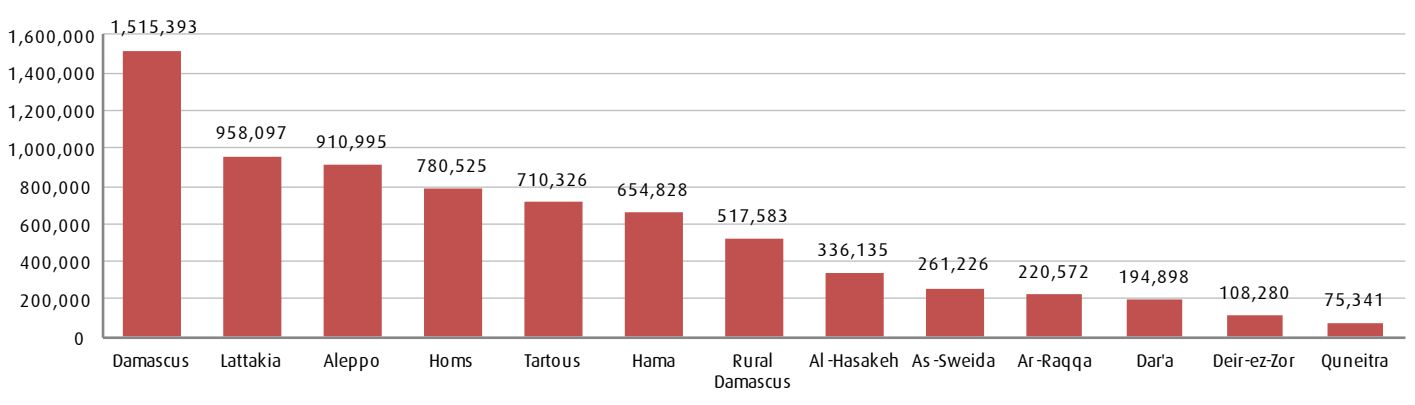
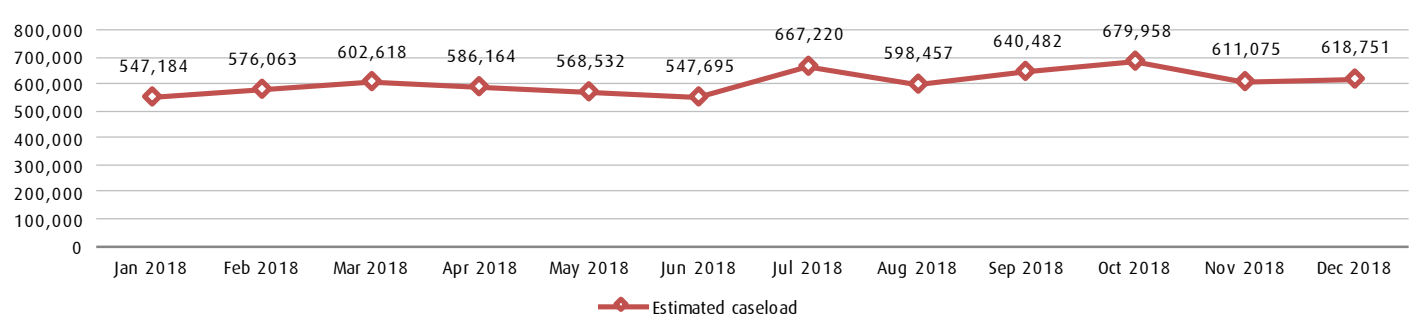


Figure 30: Trend analysis of estimated caseload in public hospitals, January to December 2018





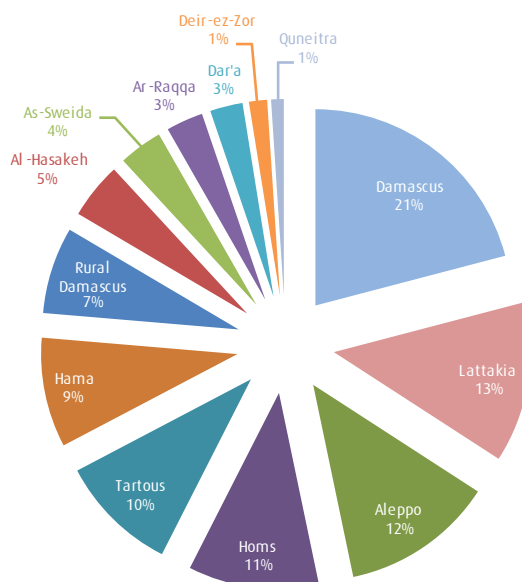
Most of healthcare services had a remarkable drop in June; due to the limited medical visits in Ramadan (fasting month).

The proportion of workload of functional hospitals per governorate is provided on Figure 31.

Detailed analysis on utilization of the core health services is provided on the following sub-sections, including:

1. General Clinical Services (Outpatient, Inpatient, Laboratory, Blood bank services, Imaging services)
2. Surgical and Trauma care
3. Maternal health services [normal deliveries, caesarean sections, and CEmOC]
4. Nutrition
5. Child Health
6. Communicable diseases
7. Non-communicable diseases
8. Mental Health

Figure 31: Proportions of workload during 2018, per governorate



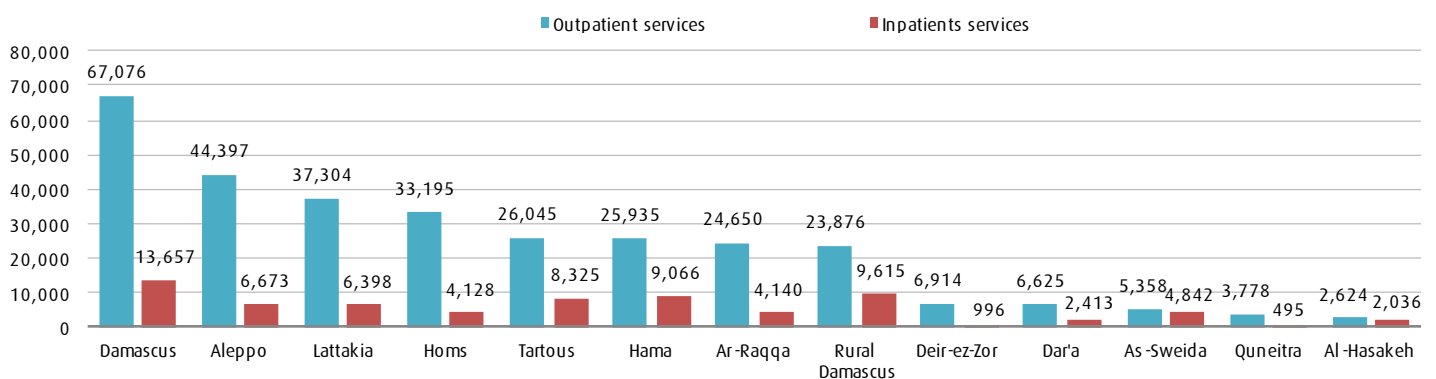
## 5.1 General clinical services

The following sections provide analysis on the utilization of health services in functional public hospitals at governorate level.

### i. Outpatient and inpatient

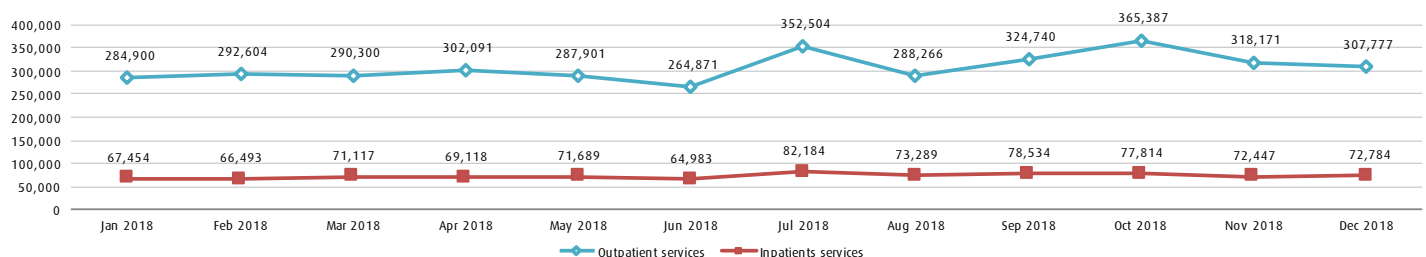
The number of outpatients to inpatients was assessed at a hospital level, and the total numbers reported in December 2018 were summarized and analyzed at governorate level [Figure 32].

Figure 32: The number of Outpatient and Inpatient in public hospitals, December 2018



Trend analysis of total reported numbers of outpatient and Inpatient from functional public hospitals [MoH & MoHE], for twelve months (January to December 2018), is presented in [Figure 33]. In 2018, the total reported outpatients are 3,679,512 while the inpatients are 867,906.

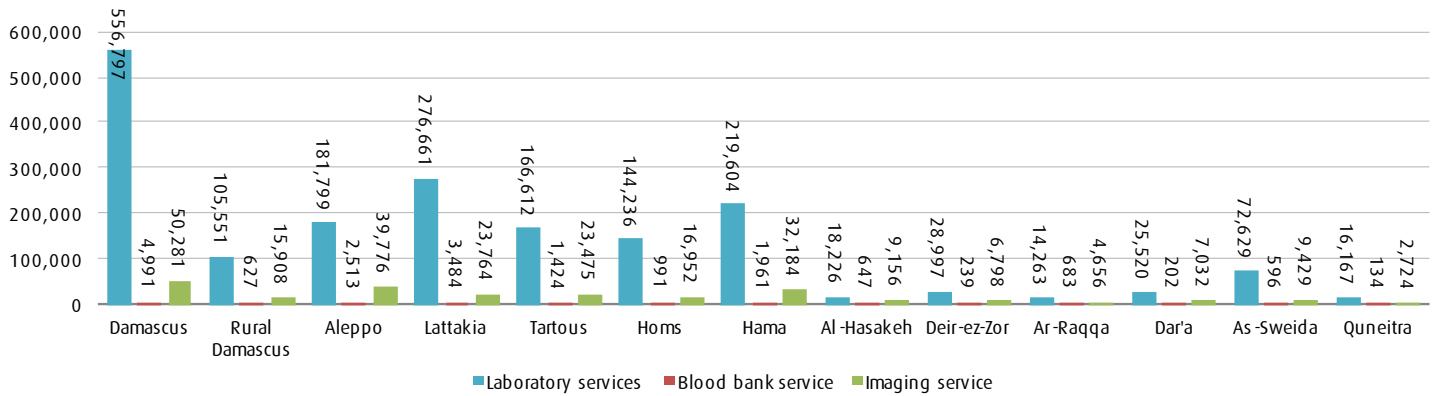
Figure 33: Trend analysis of outpatient and Inpatient in public hospitals, January to December 2018



ii. Laboratories, blood bank, and imaging services

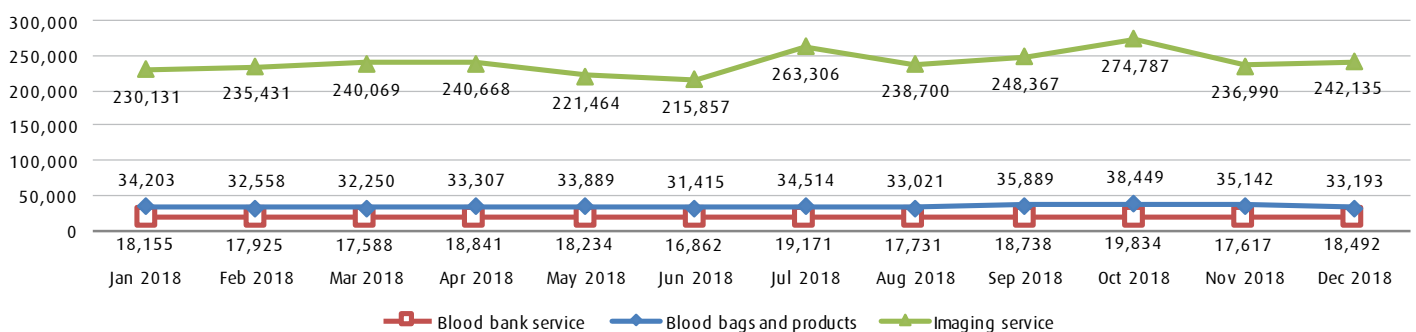
The number of patients received services in hospitals' laboratories, blood bank, and imaging departments was assessed at a hospital level, and the total number of cases from January to December 2018 analyzed at governorate level [Figure 34].

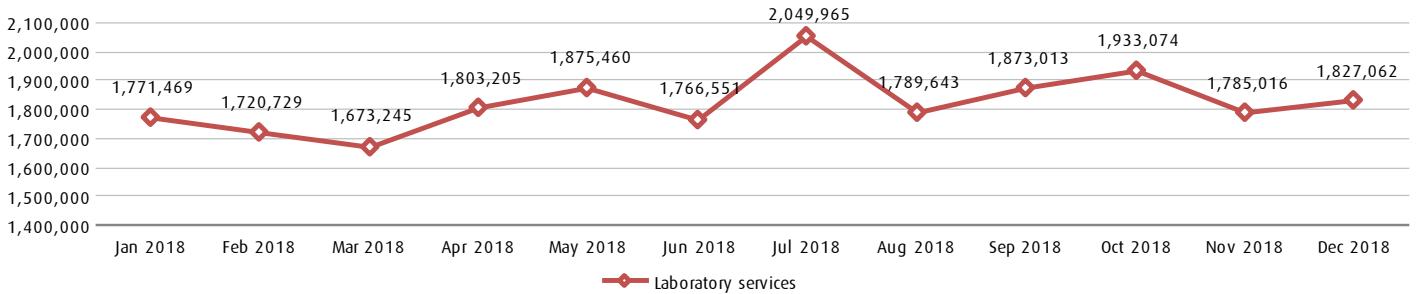
Figure 34: The number of patients received services in laboratories, blood bank, and imaging services in public hospitals, December 2018



Trend analysis of number of patients received services in hospitals' blood banks and imaging departments, from January to December 2018, is presented in [Figure 35]. In 2018, the total reported patients received services in blood banks are 219,188 [of note: the total number of blood bags and products in 2018 are 407,830], while patients received imaging services are 2,887,905 [of note: the total performed service (X-Ray, MRI, and CT Scan pictures) in 2018 are 3,926,777].

Figure 35: Trend analysis of number of patients received services in blood banks and imaging services in public hospitals, January to December 2018





### 5.2 Surgical and trauma care

The surgical and trauma care services is assessed at hospitals' level. Descriptive analysis is conducted at governorate's level for the number of reported emergency cases, and surgeries (elective and emergency).

#### iii. Emergency cases reported in emergency departments

Figure 36 presents the total number of cases in emergency departments, reported during December 2018 from functional public hospitals at governorate level.

Figure 36: The number of reported cases in emergency department in public hospitals, December 2018

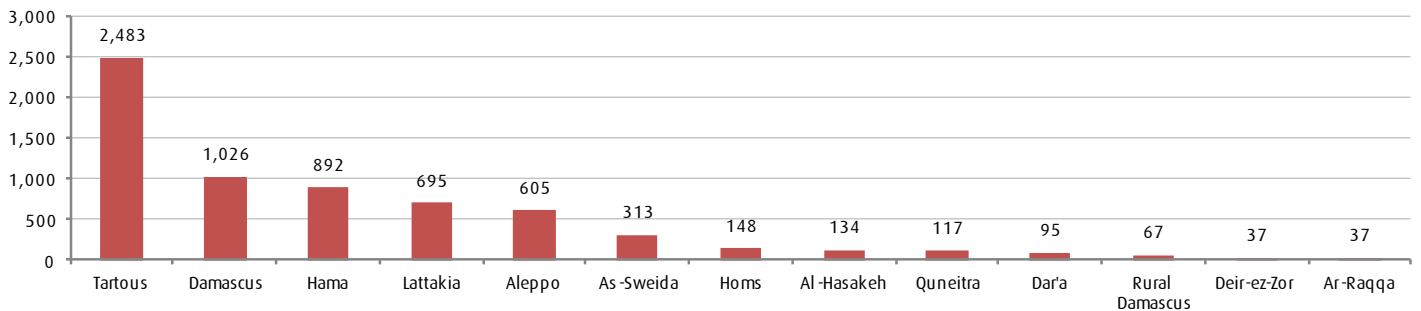
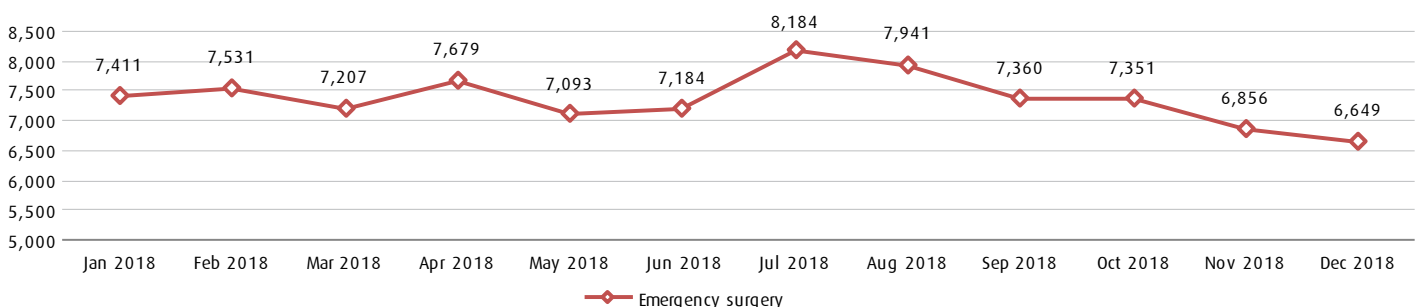


Figure 37: Trend analysis of number of reported cases in emergency department in public hospitals, January to December 2018



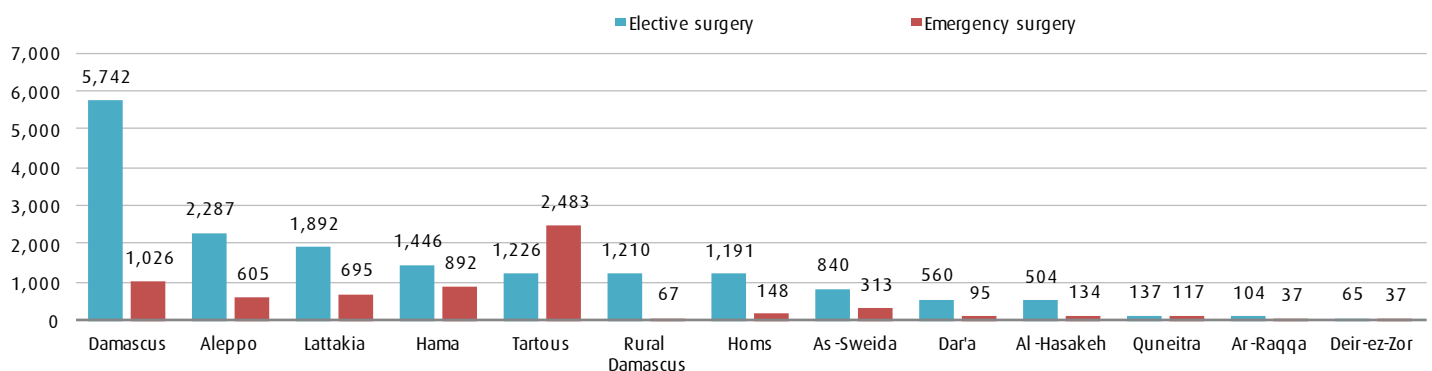
#### iv. Emergency and elective surgeries

The number of emergency surgeries to elective surgeries was assessed at a hospital level, and total numbers were summarized and analyzed at governorate level [Figure 38].

During December 2018, the highest workload of elective surgeries is reported from Damascus MoH Hospital (Al-Mojtahid: 1,081), followed by Tishreen university hospital in Lattakia (934), Aleppo university hospital (807), Al-Assad university hospital in Damascus (916), Al-Mouwasat university hospital (799), Hama national hospital (751), Zaid Ash-Shariti hospital in As-Sweida (597), Ar-Razi MoH hospital in Aleppo (581), and Al-Bassel Heart Institute in Damascus (562), and while the highest workload of emergency surgeries is reported from Al-Bassel hospital in Tartous (2,257), followed by Al-Mouwasat MoHE hospital (366), Tishreen university hospital in Lattakia (287), Zaid Ash-Shariti hospital in As-Sweida (283), National hospital in Lattakia (280), Aleppo university hospital (272). Az-Zahrawy hospital in Damascus (268), Hama national hospital (255), Al-Assad Medical Complex in Hama (255), Obstetrics and Gynecology Hospital in Aleppo (231), and Damascus MoH Hospital (Al-Mojtahid: 222).

\*Of note, the highest number of functional public hospitals is in Damascus, of which 14 out of 15 hospitals provide elective surgeries, except Ibn-Roshd hospital for Mental Health.

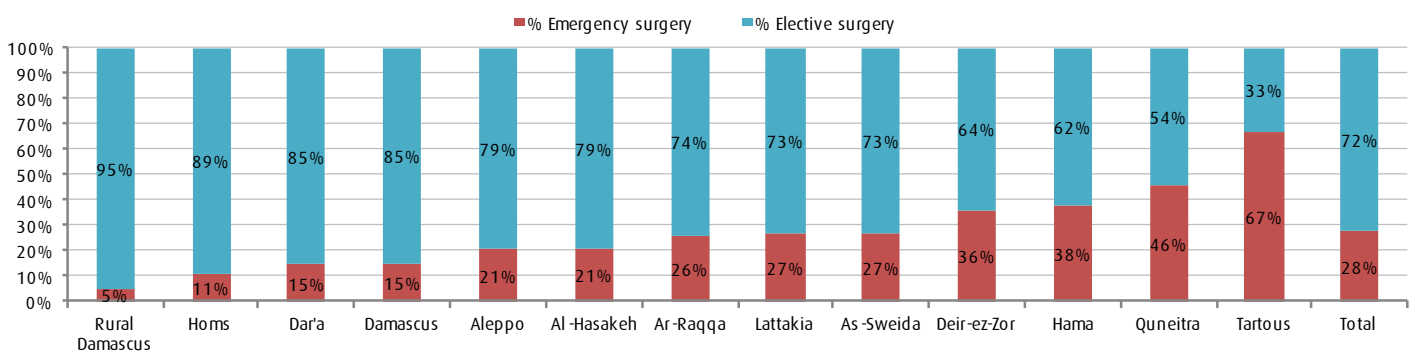
Figure 38: The number of emergency surgeries vs. elective surgeries in public hospitals, December 2018



By analyzing the percent of total emergency surgeries to elective surgeries during December 2018, the highest percent of emergency surgeries across different governorates is reported in Tartous, Quneitra, Hama, and Deir-ez-Zor governorates.

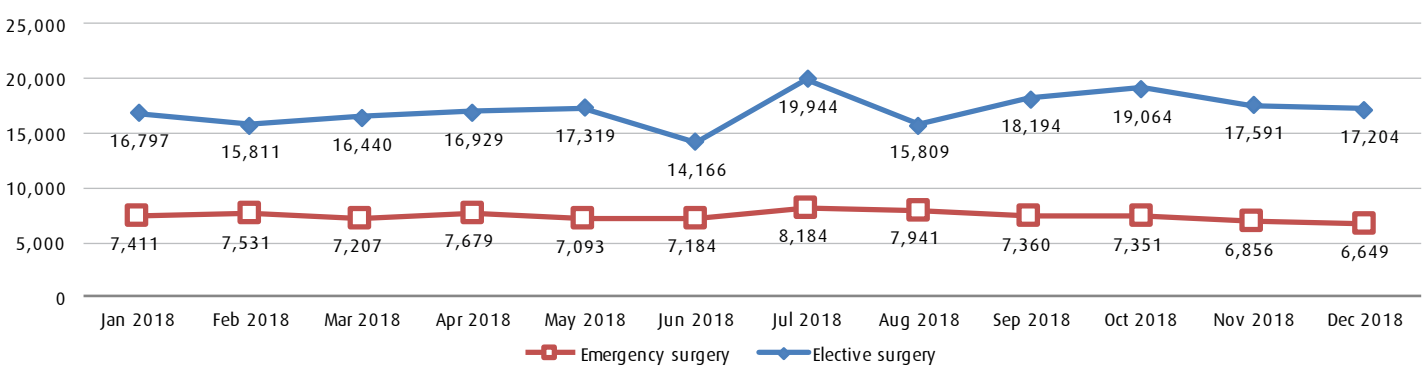
Across all reported functional public hospitals, 28% of surgeries are emergency while 72% are elective [Figure 39].

Figure 39: Percentage of total emergency surgeries to elective surgeries in public hospitals per governorate, December 2018



Trend analysis of total number of elective and emergency surgeries reported in functional public hospitals [MoH & MoHE], from January to December 2018 is presented in Figure 40. In 2018, the total reported emergency surgeries are 88,446 while the elective surgeries are 205,268.

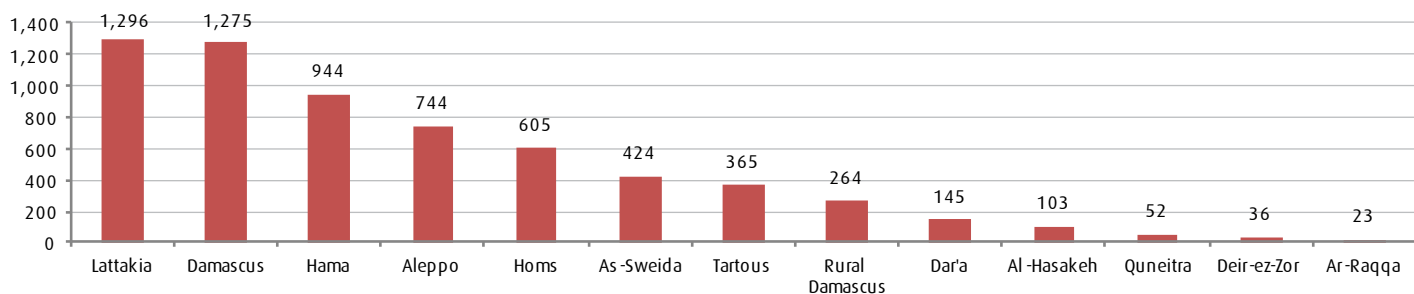
Figure 40: Trend analysis of number of patients received emergency surgeries and elective surgeries in public hospitals, January to December 2018



#### v. ICU services

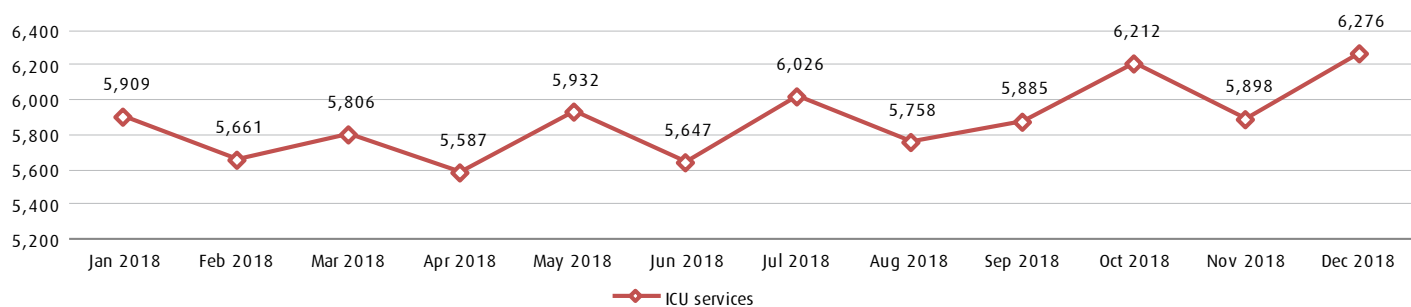
Figure 41 presents the total number of patients received ICU services reported during December 2018 from functional public hospitals at governorate level.

Figure 41: The number of patients received ICU services in public hospitals, December 2018



Trend analysis of total number of patients received ICU services reported in functional public hospitals [MoH & MoHE], from January to December 2018 is presented in Figure 42. In 2018, the total reported total number of patients received ICU services are 70,597.

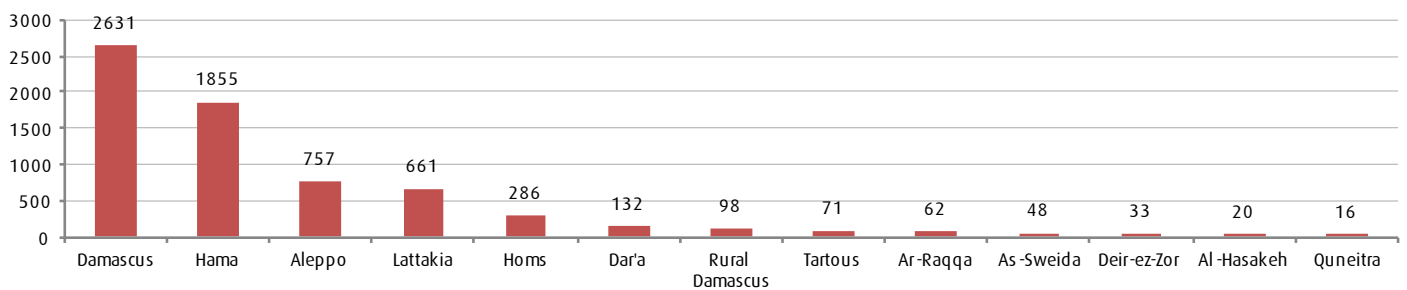
Figure 42: Trend analysis of number of patients received ICU services in public hospitals, January to December 2018



vi. Trauma services

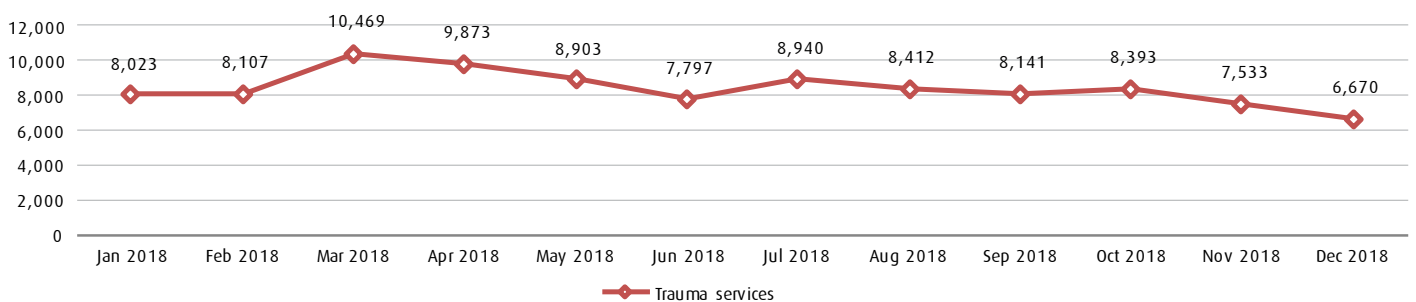
Figure 43 presents the total number of patients received Orthopaedic/trauma ward for advanced orthopaedic care reported during December 2018 from functional public hospitals at governorate level.

Figure 43: The number of patients received trauma services in public hospitals, December 2018



Trend analysis of total number of patients received trauma services reported in functional public hospitals [MoH & MoHE], from January to December 2018 is presented in Figure 44. In 2018, the total reported total number of patients received trauma services are 101,261.

Figure 44: Trend analysis of number of patients received trauma services in public hospitals, January to December 2018

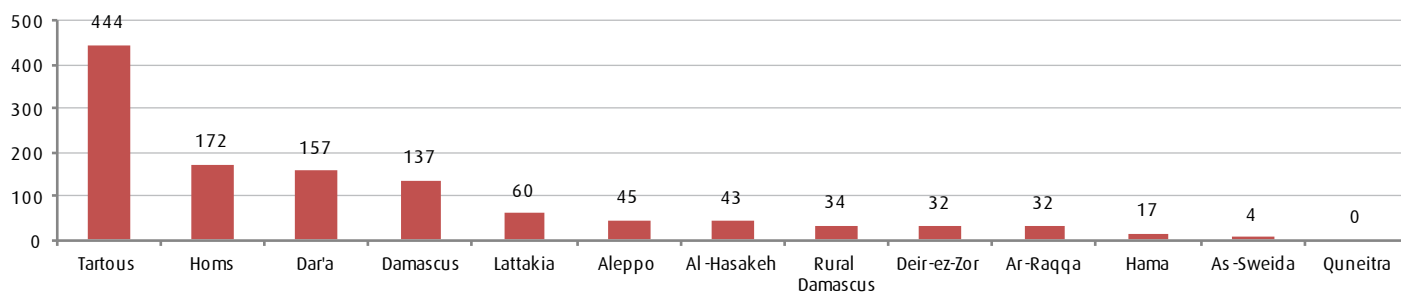




### vii. Burn patient management

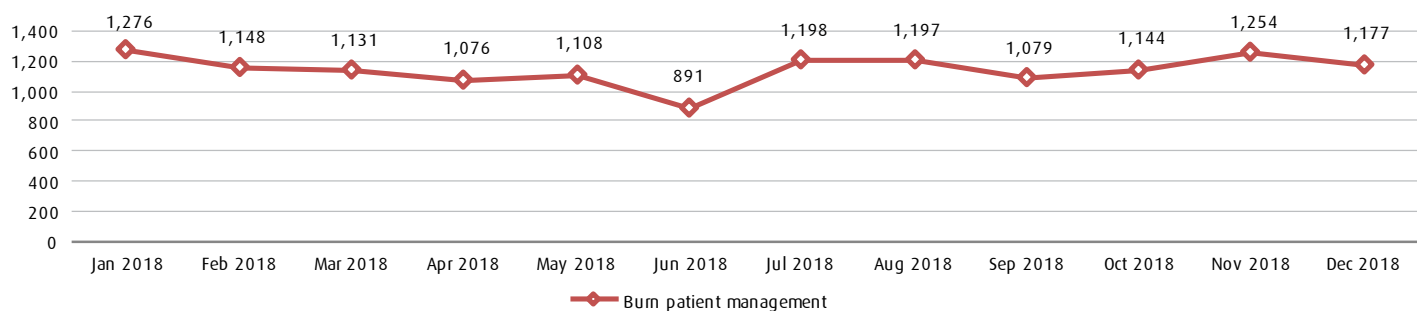
Figure 45 presents the total number of patients received burn patient management reported during December 2018 from functional public hospitals at governorate level.

Figure 45: The number of patients received burn patient management in public hospitals, December 2018



Trend analysis of total number of patients received burn patient management reported in functional public hospitals [MoH & MoHE], from January to December 2018 is presented in Figure 46. In 2018, the total reported total number of patients received burn patient management are 13,679.

Figure 46: Trend analysis of number of patients received burn patient management in public hospitals, January to December 2018



### 5.3 Maternal health services

Analysis of availability and utilization of maternal health services was conducted considering three scopes:

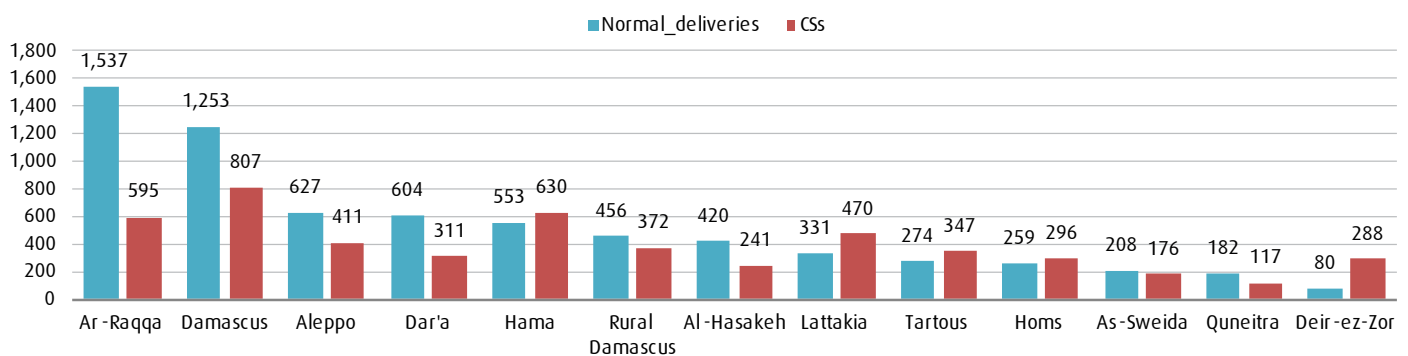
- Utilization of service (caesarean sections (CS) vs. normal deliveries); December 2018 summary figures by governorate
- Percentage of CSs to normal deliveries, of December 2018
- Trend analysis of the monthly normal deliveries vs. caesarean sections, January to December 2018

#### i. Utilization of service (caesarean sections vs. normal deliveries)

The numbers of caesarean sections performed at public hospitals (in December 2018) versus the normal deliveries have been analysed at governorates' level [Figure 47].

The highest numbers are reported from Obstetrics and Gynecology MoHE hospital in Damascus [normal deliveries are 493 while CSs are 653], followed by Maternity hospital in Ar-Raqaa [normal deliveries are 800 while CSs are 325], Children and Obstetrics hospital in Deir-ez-Zor [normal deliveries are 80 while CSs are 288], and Gynecology Hospital in Aleppo [normal deliveries are 341 while CSs are 257].

Figure 47: The No. of normal deliveries and caesarean sections (CSs) performed at public hospitals, December 2018

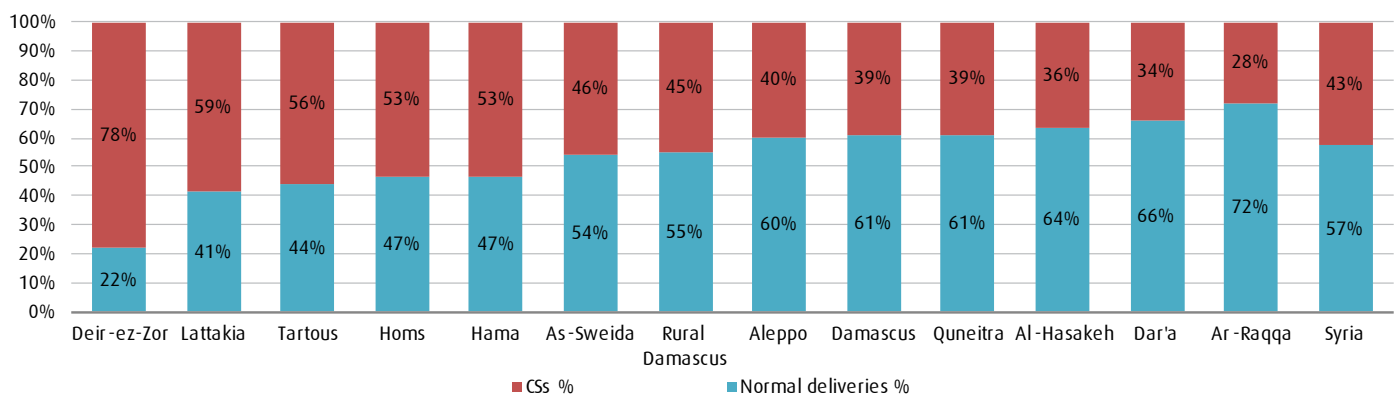


ii. Percentage of CS to normal deliveries

The highest figures of caesarian sections in December 2018 are reported in Deir-ez-Zor (288 CSs compared to 80 normal deliveries), Lattakia (470 CSs compared to 331 normal deliveries), and Tartous (347 CSs compared to 274 normal deliveries).

Across all reported functional hospitals in December 2018, 43% (5,061) of deliveries are CSs while 57% (6,784) are normal deliveries. Details on percent of CSs to normal deliveries per governorate in December 2018, is provided in [Figure 48].

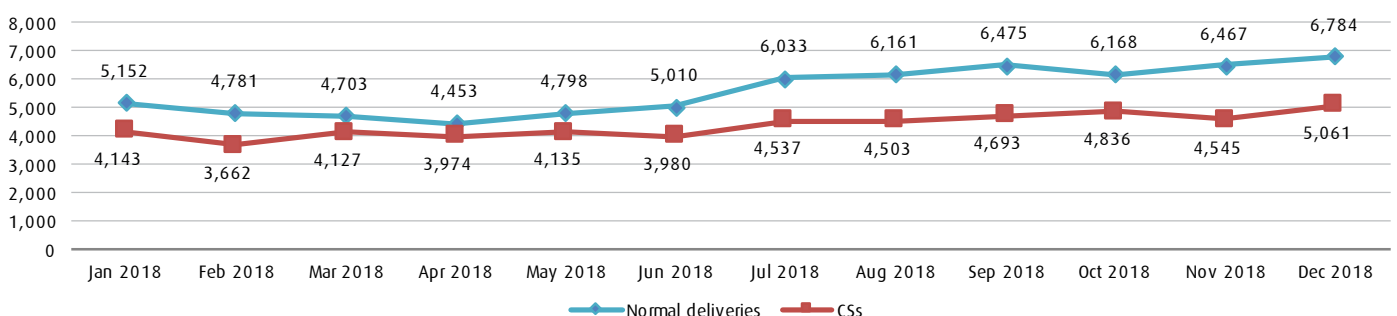
Figure 48: Percentage of caesarean sections to normal deliveries in public hospitals, December 2018



iii. Trend analysis of the monthly numbers of normal deliveries vs. caesarean sections

Trend analysis of the monthly numbers of normal deliveries vs. caesarean sections reported from the MoH & MoHE hospitals, from January to December 2018 is shown in Figure 49. In 2018, the total reported normal deliveries are 66,985 while the caesarean sections are 52,196.

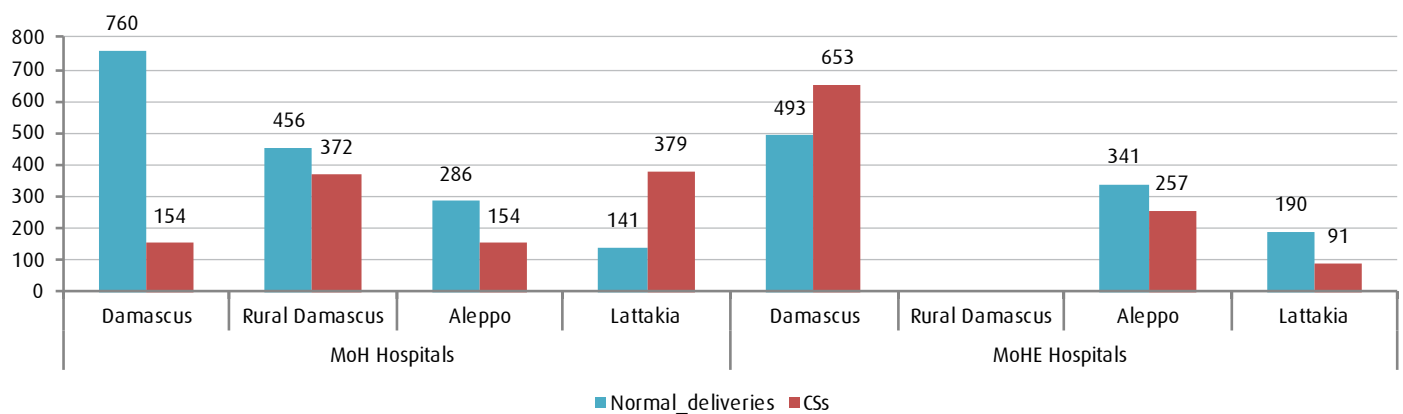
Figure 49: Trend analysis of the monthly numbers of normal deliveries vs. caesarean sections in public hospitals, January to December 2018



#### iv. Comparison of MoH and MoHE hospitals workload of normal deliveries vs. CSs:

Comparison analysis between MoH and MoHE hospitals that provide Obstetrics & Gynecology services across four governorates is shown in [Figure 50].

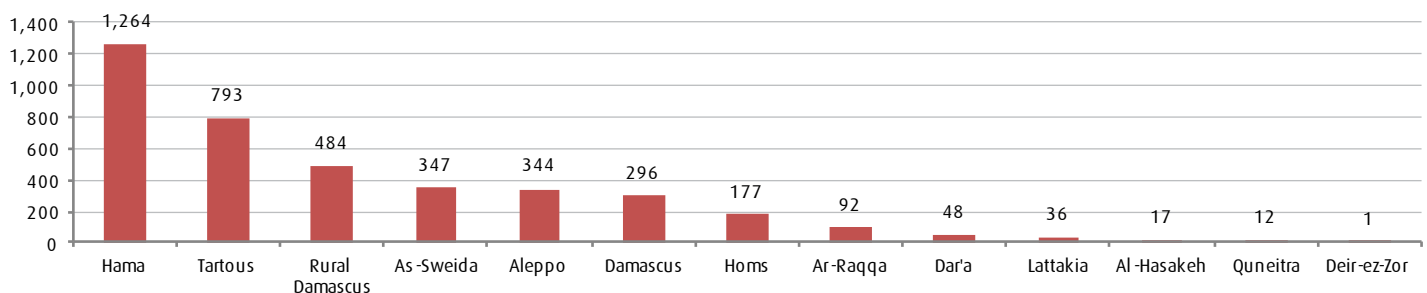
Figure 50: Comparison of MoH & MoHE hospitals workload of normal deliveries vs, CSs, December 2018



## 5.4 Child health

Management of severe children diseases (such as acute respiratory diseases, Meningitis, blood diseases cancer, etc...) are assessed at hospitals level. Figure 51 shows the distribution of total reported cases of management of children classified with severe or very severe diseases (parenteral fluids and drugs, oxygen) by governorate.

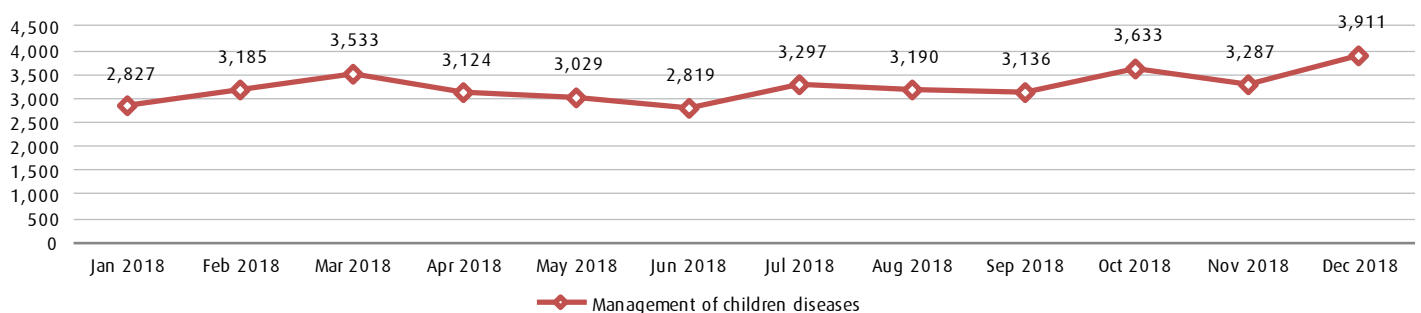
Figure 51: Number of children with severe diseases in public hospitals, December 2018



The high reported figures in Hama, Tartous, Rural Damascus, As-Sweida, Aleppo and Damascus are due to the high numbers of IDPs, and also availability of MoHE referral hospitals for children in some of these areas.

Trend analysis of reported cases of severe children diseases from January to December 2018, is presented in [Figure 52]. In 2018, the total reported cases of severe children diseases are 38,971.

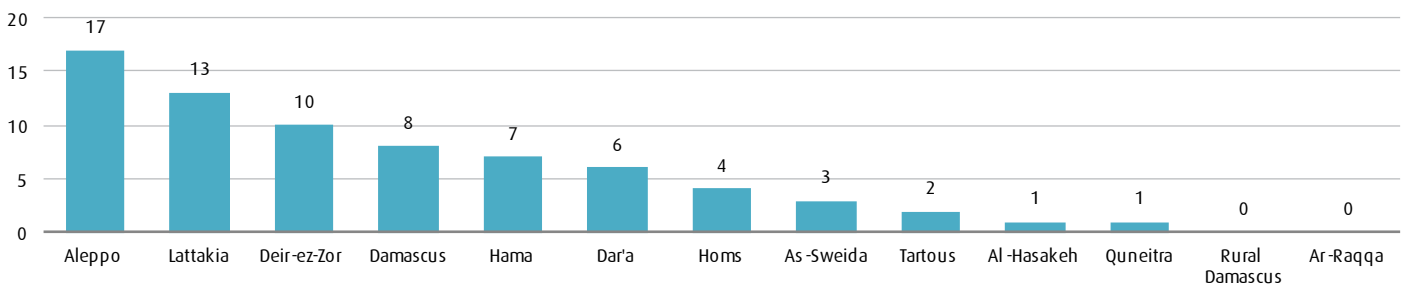
Figure 52: Trend analysis of reported cases of severe children diseases in public hospitals, January to December 2018



5.5 Nutrition

Monitoring of cases in stabilization centre for the management of severe acute malnutrition with medical complications, with availability of ready-to-use therapeutic foods and dedicated trained team of doctors, nurses, and nurse aids, 24/7 is systematically conducted at public hospitals level; Figure 53 demonstrates the number of cases reported in December 2018, at governorate level.

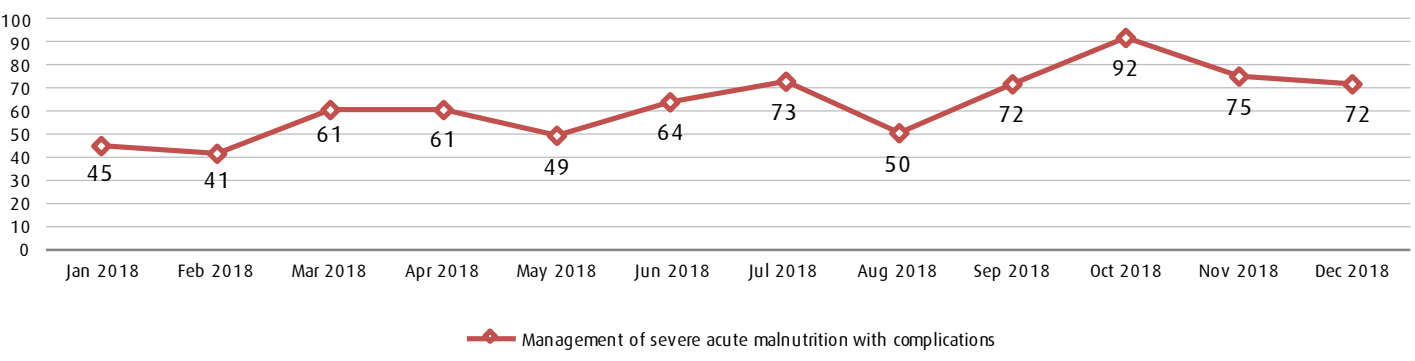
Figure 53: The number of children with severe acute malnutrition with complications in public hospitals, December 2018



The high reported figures in Aleppo, Lattakia, Deir-ez-Zor, Damascus, Hama, and Dar'a due to the high numbers of IDPs.

Trend analysis of reported cases of severe acute malnutrition from January to December 2018, is presented in [Figure 54]. In 2018, the total reported children with severe acute malnutrition are 755.

Figure 54: Trend analysis of number of children with severe acute malnutrition with complications in public hospitals, January to December 2018

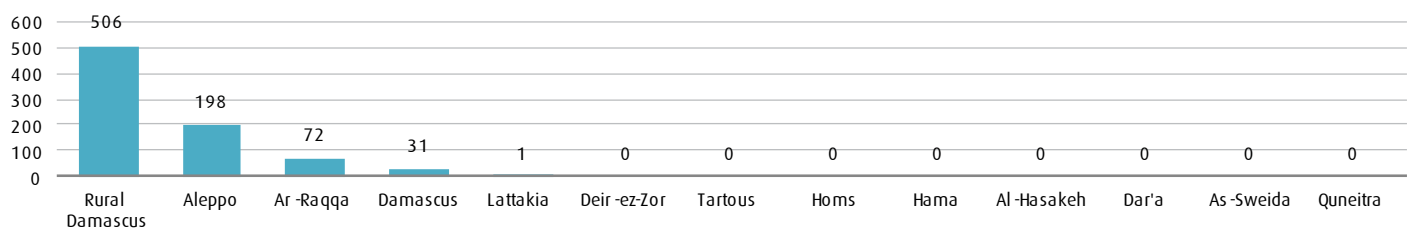


Management of severe acute malnutrition with complications

### 5.6 Communicable diseases services

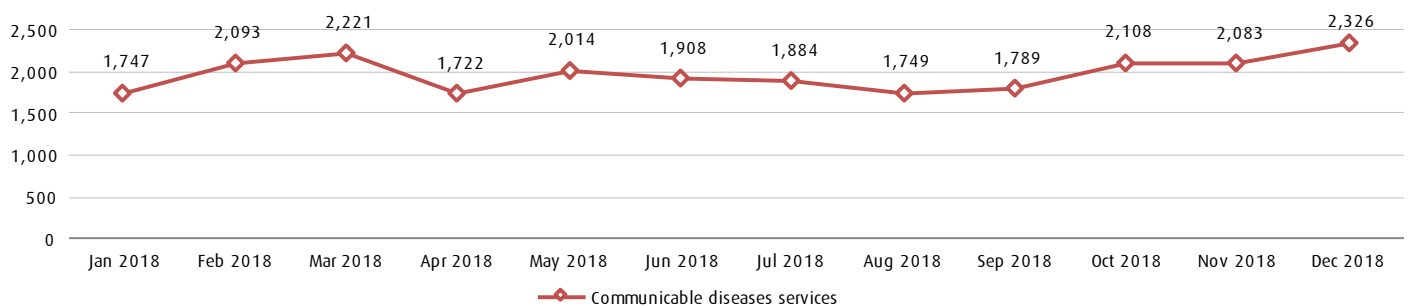
Management of severe and/or complicated communicable diseases (such as meningitis, measles, SARI, others) are assessed at hospitals level. Figure 55 shows the distribution of total reported cases of communicable diseases services by governorate.

Figure 55: The number of patients received communicable diseases in public hospitals, January to December 2018



Trend analysis of reported patients received communicable diseases from January to December 2018, is presented in [Figure 56]. In 2018, the total reported patients are 23,644.

Figure 56: Trend analysis of number of patients received communicable diseases in public hospitals, January to December 2018



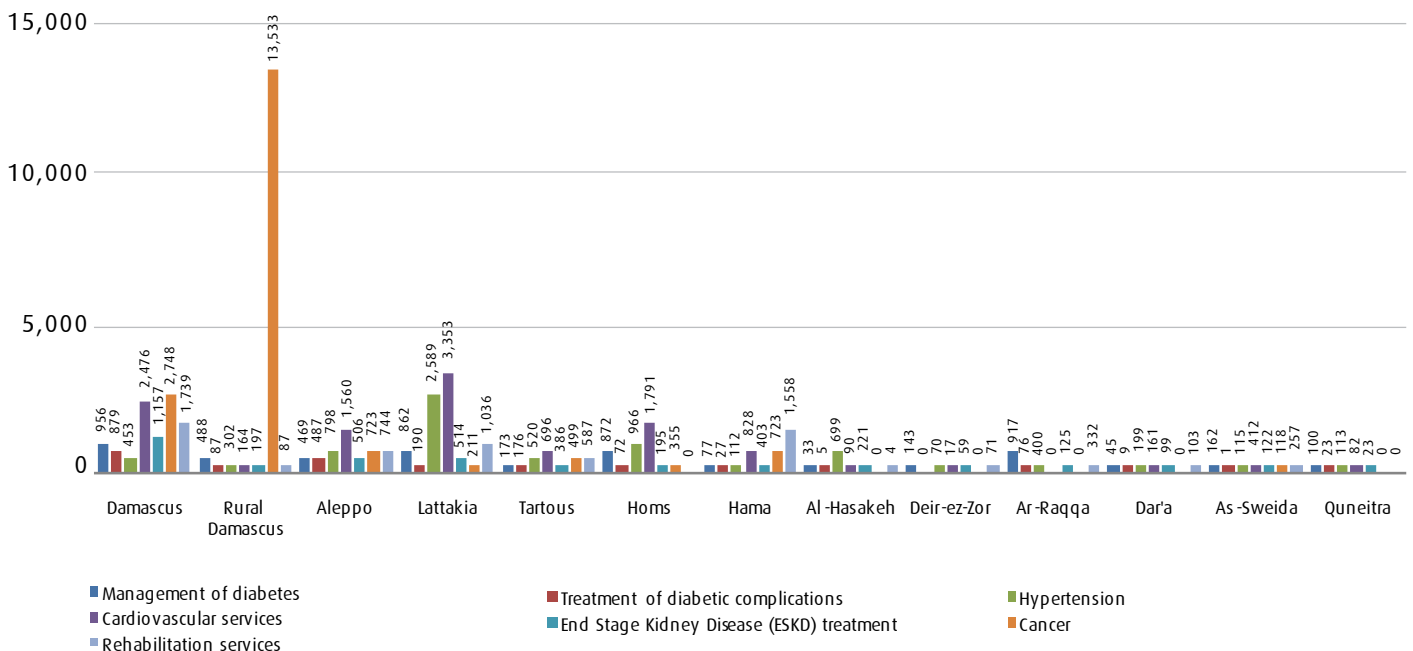
### 5.7 NCDs (non-communicable diseases)

NCDs were assessed through HeRAMS by checking the availability and utilization of services at hospitals level. The majority of high reported figures of NCDs (Diabetes, Treatment of diabetic complications, Hypertension, Cardiovascular, Kidney, and Cancer diseases) are from Damascus hospitals.

Among all NCDs during 2018, Cancer patients' consultations are the highest reported figures, mainly in Damascus, Rural Damascus (has one cancer specialized hospital). It worth mentioning that cancer is treated at secondary and tertiary levels only, while other NCDs (diabetes and hypertension, etc...) usually managed at primary and secondary care levels, unless patients develop complications.

Cardiovascular consultations are the second highest reported figures during 2018, mainly in Lattakia (has one cardiovascular specialized hospital), Damascus (has two cardiovascular specialized hospitals), and Aleppo (has two cardiovascular specialized hospitals, Homa, Hama, and Tartous [Figure 57]

Figure 57: The number of NCDs' consultations in public hospitals, December 2018



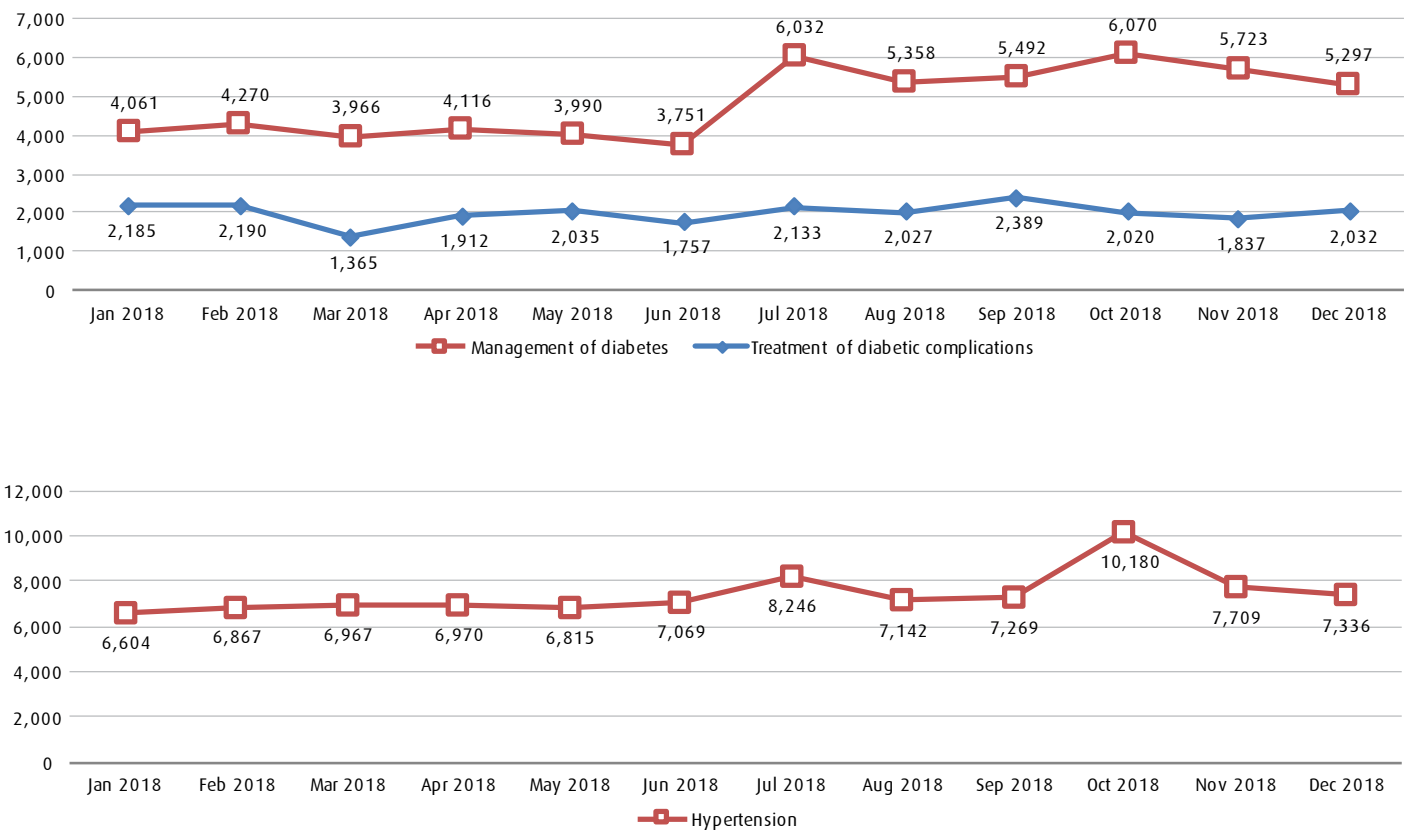


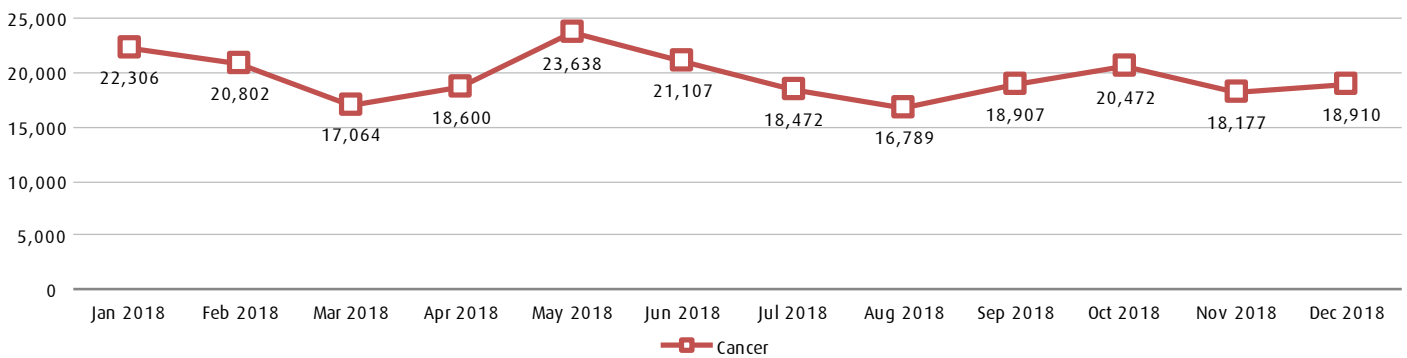
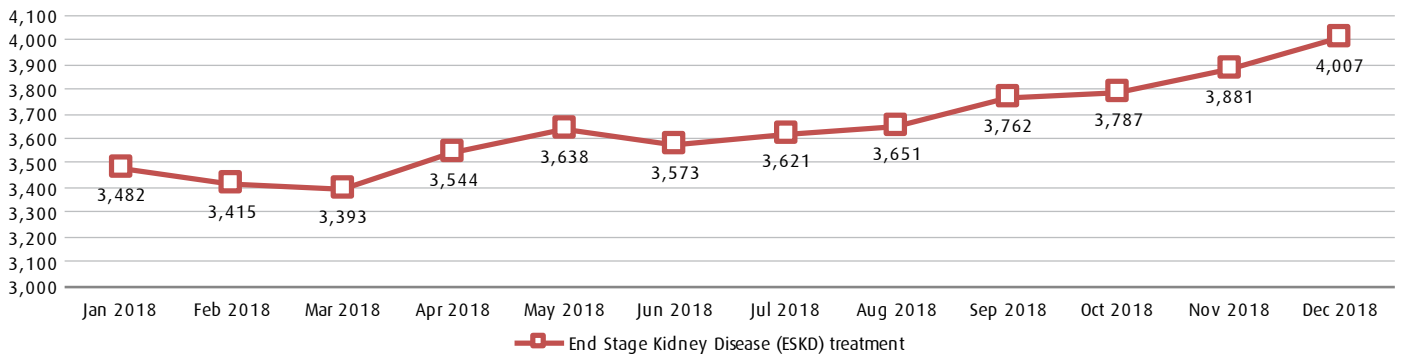
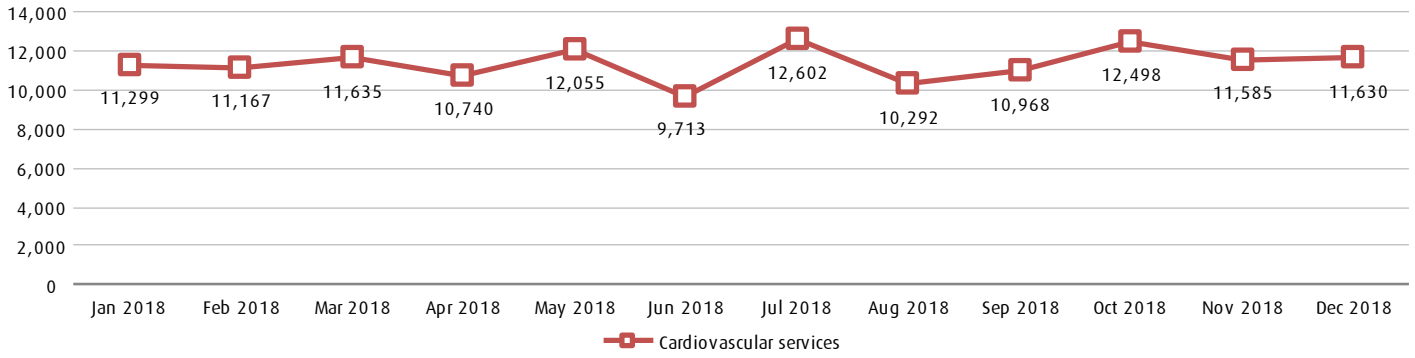
The monthly trend of reported NCDs' consultations at functional public hospitals from January to December 2018 is shown in [Figure 58].

In 2018, the total reported NCDs' consultations are as follow:

- Diabetes: 58,126
- Diabetic complications: 23,882
- Hypertension: 89,174
- Cardiovascular: 136,184
- ESKD: 43,754 [of note: the total performed ESKD Sessions in 2017: 340,605]
- Cancer: 235,244

Figure 58: Trend analysis of total monthly number of NCDs' consultations reported in public hospitals, January to December 2018

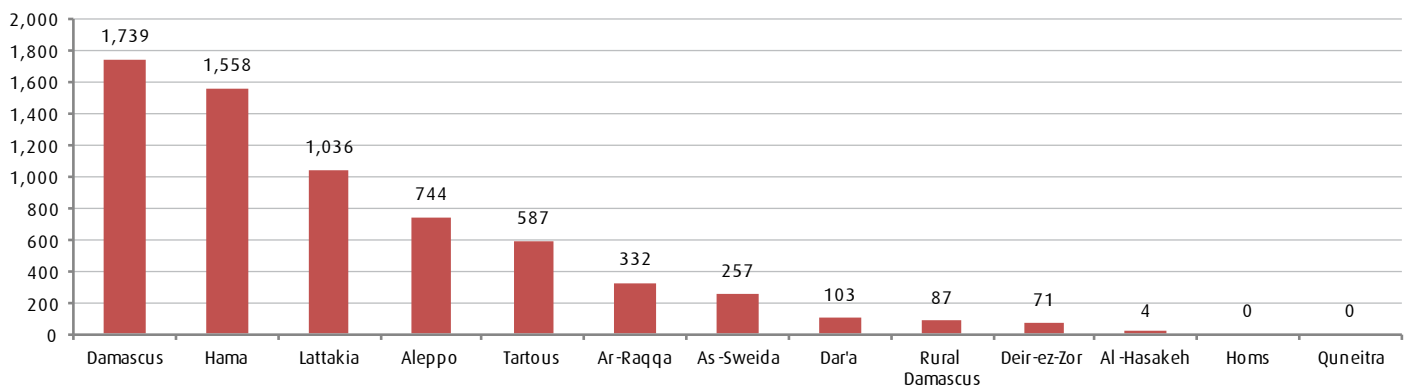




## 5.8 Rehabilitation services

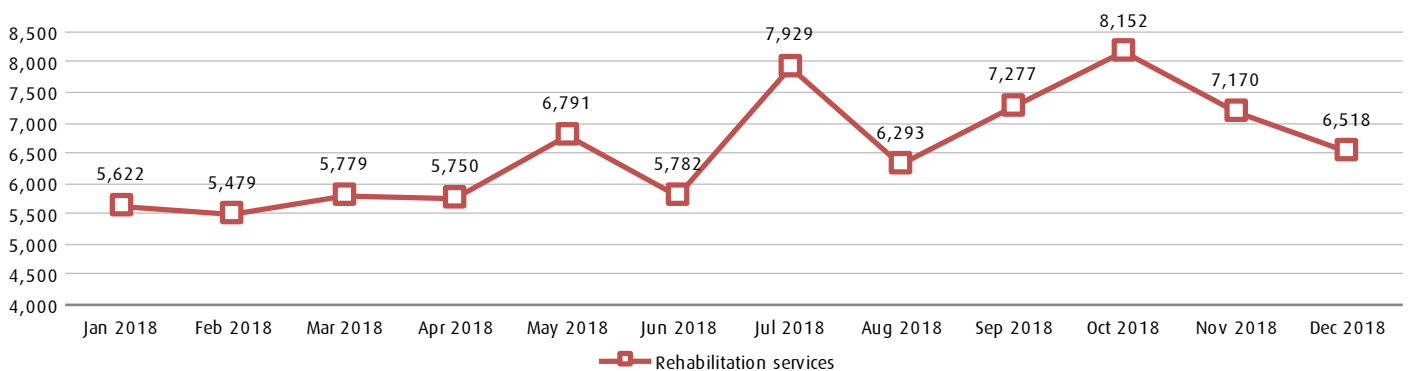
Rehabilitation services and assistive device provision, including post-operative rehabilitation for trauma-related injuries are assessed at hospitals level. Figure 59 shows the distribution of total reported cases of rehabilitation services by governorate.

Figure 59: The number of rehabilitation services in public hospitals, June 2018



Trend analysis of reported patients received rehabilitation services from January to December 2018, is presented in [Figure 60]. In 2018, the total reported patients are 78,542.

Figure 60: Trend analysis of number of rehabilitation services in public hospitals, January to December 2018



## 5.9 Mental health

Inpatient care for management of mental disorders by specialized health-care providers are assessed at hospitals level. Figure 61 shows the distribution of total reported cases of Psychiatric inpatient by governorate.

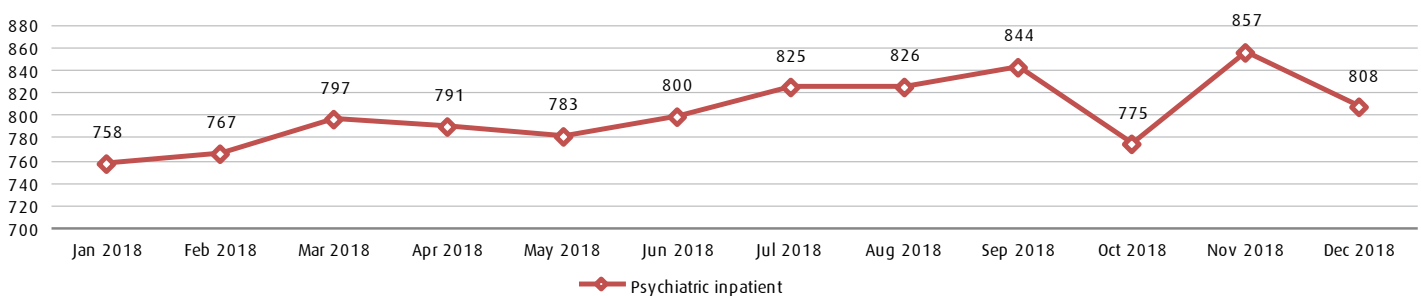
The key figures of Psychiatric inpatient are reported from Rural Damascus (Ibn-Sina Psychiatric MoH hospital (506 cases), followed by Aleppo (Ibn-Khaldoun MoH hospital (198 cases), Ar-Raqqa (Tal Abyad hospital (72 cases), and Al-Mouwasat university hospital (24),

Figure 61: The number of psychiatric inpatients in public hospitals, December 2018



Trend analysis of monthly reported number of psychiatric inpatients in public hospitals [MoH & MoHE] from January to December 2018 is shown in [Figure 62]. In 2018, the total reported psychiatric inpatients cases are **9,631**.

Figure 62: Trend analysis of number of psychiatric inpatient cases in public hospitals, January to December 2018



## 6. Availability of medical equipment

The availability of different types of essential and specialized equipment and supplies was assessed at hospital level, based on a standard checklist<sup>2</sup>.

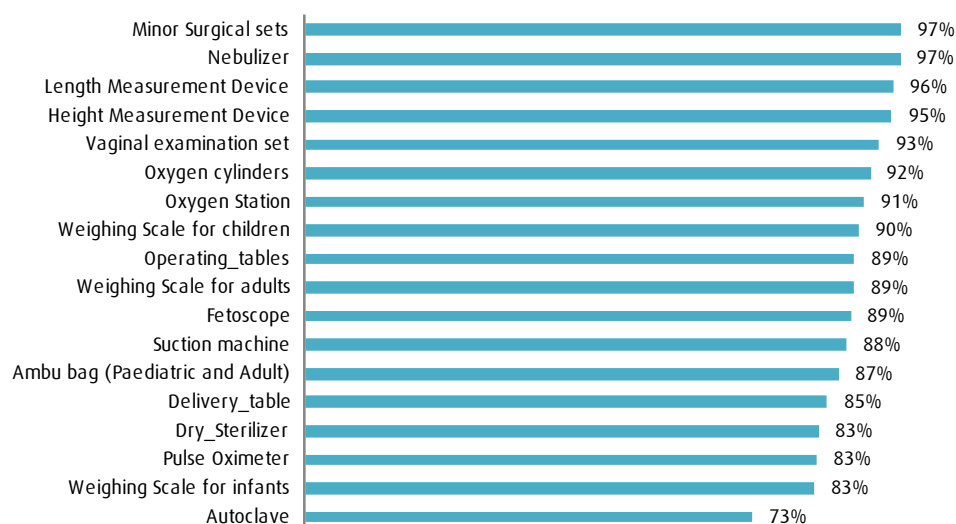
In its eighth year of crisis, Syria's hospitals (have a remarkable improvements) are still suffering from shortages and/or malfunction of medical devices/ equipment to provide secondary care services. In insecure governorates, medical devices are either destroyed, burned, or malfunctioned, while in safe areas the medical devices are overburdened by increased numbers of people (actual numbers of people in the area, in addition to IDPs and patients /injured people from surrounding areas).

Maintenance of malfunctioned devices remains a concern, due to non-availability of spare parts, accredited agent to provide maintenance support, or difficulty of accessibility in many cases.

Analysis of availability of essential and specialized equipment was measured across all functional public hospitals [MoH & MoHE] (85/111), in terms of functional equipment out of the total available equipment in the hospital. The produced analysis provides good indication of the current readiness of the hospitals to provide the health services, and also to guide focused planning for procurement of equipment and machines, to fill-in identified gaps.

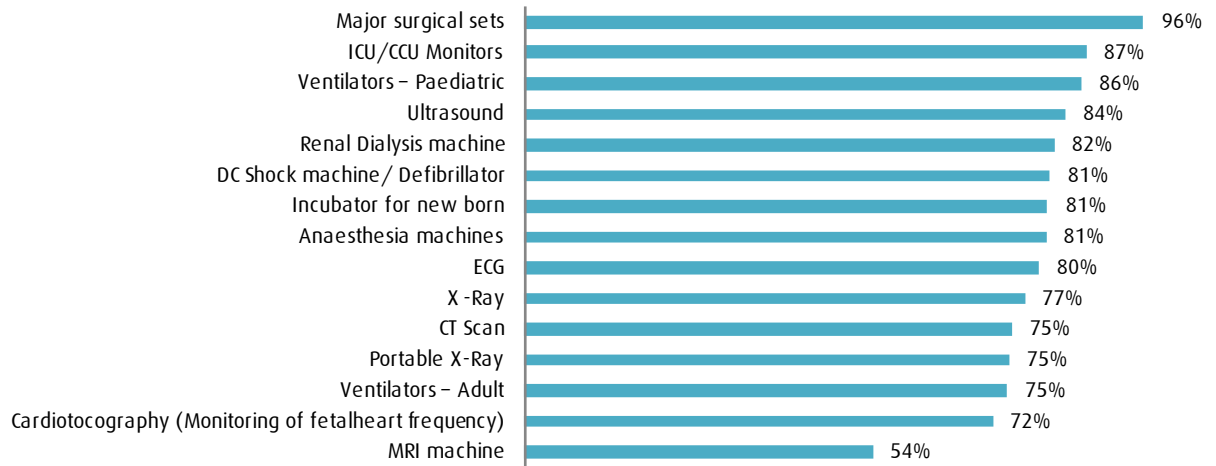
Gaps on essential and specialized equipment and machines were observed, even within the functional public hospitals. Further details are provided on [Figure 63] and [Figure 64].

Figure 63: Percentage of functional essential equipment/ total available equipment in functional public hospitals, December 2018



<sup>2</sup> A more detailed list of essential equipment is available upon request.

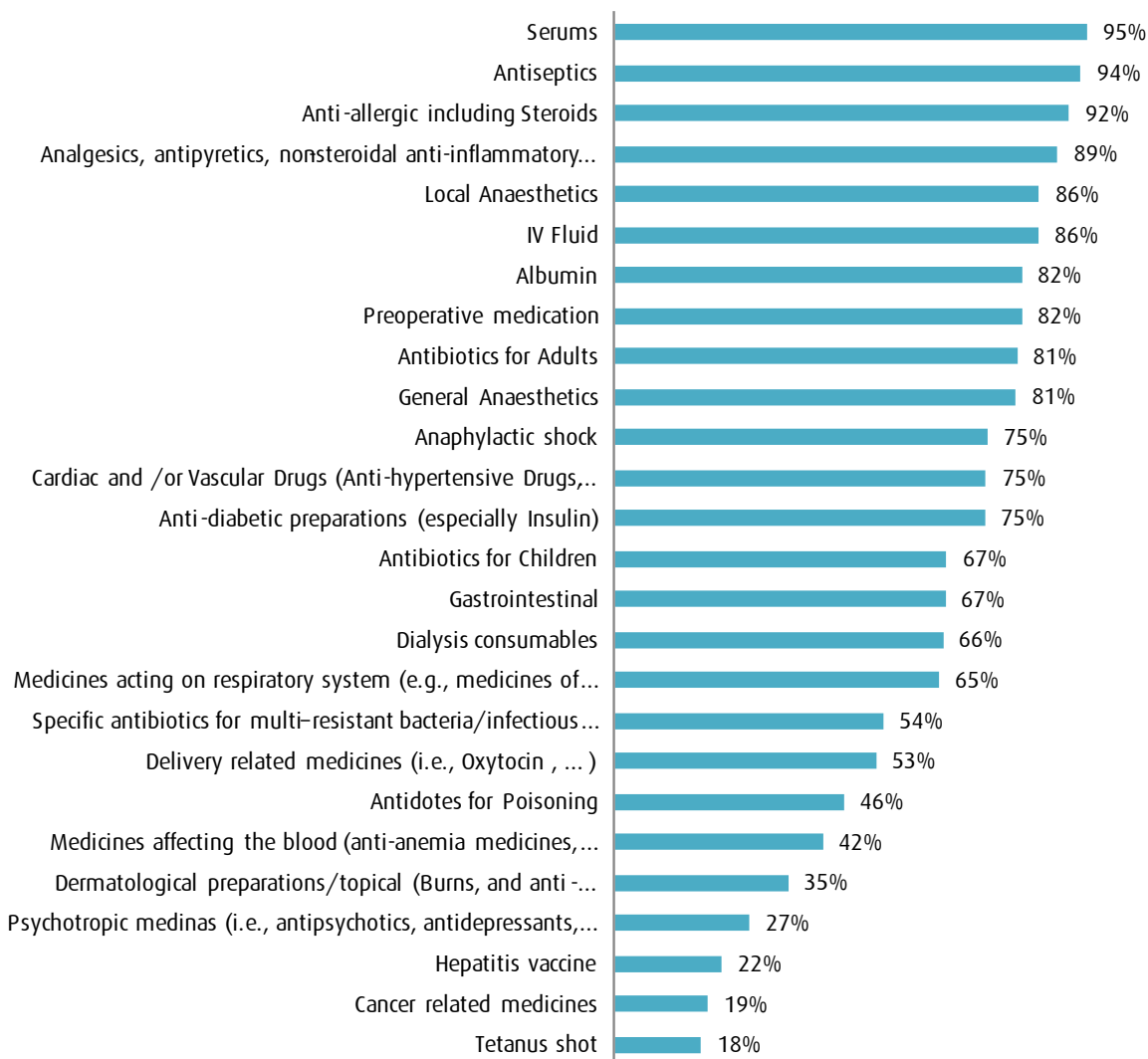
Figure 64: Percentage of functional specialized equipment/ total available equipment in the functional public hospitals, December 2018



## 7. Availability of medicines & medical supplies

Availability of medicines and medical supplies at hospitals' level was evaluated based on a standard list of identified priority medicines (driven from the national Essential Medicine List), and medical supplies for duration of one month [Figure 65].

Figure 65: Availability of medicines and medical supplies for one month in the functional public hospitals, December 2018



Based on the priority medicines list agreed by MoH and WHO, WHO has managed to address the gaps of medicines identified at all levels of health care.

More details on availability of medicines and medical supplies at governorate level are available in HeRAMS database.

## 8. Conclusions and recommendations

Slight variation of functionality status of public hospitals was observed throughout 2018. For example, 26 hospitals were reportedly out-of-service in December 2018 compared to 29 in January and 29 in June of the same year. Similarly, access to the public hospitals has minor changes throughout 2018 with 22 hospitals reportedly non-accessible in December 2018 compared to 26 in January of the same year. Functionality status of hospitals was highly affected by the dire security situation and limited access by health staff and patients as well as critical shortages of supplies.

Levels of damages of the hospitals' buildings directly affected the functionality status and provision of health services; however some hospitals have resiliently continued to provide services regardless of levels of damage to the building and by utilizing intact parts of the building or operating from other neighboring facilities in a few cases. Rehabilitation of the damaged hospitals' infrastructure, in addition to provision of supplies and medical equipment will significantly improve functionality of hospitals, readiness and provision of essential health services at secondary care level.

Slight improvement of the available number of medical staff (doctors, nurses and midwives) throughout 2018 was observed. However, increased capacity building activities and training courses of the national health staff will help in improving technical capacity of healthcare providers and filling gaps in certain areas.

Limited functionality and accessibility to public hospitals in addition to large displacement of people have greatly overburdened the few functional public hospitals' resources. Increasing provision of specialized medical machines, as well as medicines and supplies especially for NCDs (such as cancer treatment, as observed the highest consultations among other NCDs) provides an affordable alternative compared to the high cost of healthcare in the private sector.

Furthermore, the crisis aggravated the inequalities among regions, leaving many people deprived of the minimum level of health services. HeRAMS can help in directing the interventions of different players to the most vulnerable groups and those with the greatest needs, and in assessing the efficiency of interventions.

Conducting a qualitative survey on provision of health services from the populations' point of view, using HeRAMS data as a baseline, will help in concretely measuring the impact of the crisis on public health sector in terms of responsiveness of hospitals and quality of provided services.



