



**World Health
Organization**
Syrian Arab Republic



HeRAMS

Annual Report

Public Hospitals
in the Syrian Arab Republic

2021

January - December

HeRAMS Annual Report

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Public Hospitals in the Syrian Arab Republic



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

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Abbreviations

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

Introduction

HeRAMS is a global health information management tool (for mapping, 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 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 114 hospitals)).

Despite the challenging situation, disruption of the Health System, implementation of HeRAMS has been successfully institutionalized and strengthened in public health facilities since 2014.

Completeness of hospitals' reporting remained 100%, where all 114 public hospitals: 101 (MoH) hospitals and 13 (MoHE) hospitals reported to HeRAMS by end of December 2021.

Functionality status of the public hospitals

By the end of December 2021, and out of the 114 assessed public hospitals (MoH & MoHE), 56 (49%) were reported fully functioning, 30 (26%) hospitals were reported partially functioning (i.e., shortage of staff, equipment, medicines, or damage of the building in some cases), while 28 (25%) were reported non-functioning.

Accessibility status of the public hospitals

By the end of December 2021, 90 (79%) hospitals were reported accessible, 8 (7%) hospitals were hard-to-access, and 14% (16) hospitals were inaccessible.

Infrastructure of the public hospitals

By the end of December 2021, 49 (43%) hospitals were reported damaged (9% were fully damaged and 34% were partially damaged), while 65 (57%) 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 32.6% (28 hospitals) are using main pipelines, 8.1% (7 hospitals) are mainly using wells, 58.1% (50 hospitals) are using both (main pipeline and well), while 1.2% (1 hospitals) 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 35% (30 hospitals) of functional public hospitals across Syria are in need for electrical generators, mainly reported from 12 governorates: Damascus, Rural Damascus, Aleppo, Lattakia, Homs, Hama, Al-Hasakeh, Deir-ez-Zor, Dar'a, Tartous, As-Sweida, and Quneitra.

Human resources for health

The lowest proportions of health staff in public hospitals were reported as, general practitioner (0.2%), emergency physician (0.3%), dentists (0.7%), pharmacists (0.8%). Other proportions were, midwives (4.4%), laboratory (4.6%), specialists (11.2%), resident doctors (25.8%), and nurses (52 %).

Trend analysis of available number of medical doctors, nurses, and midwives during 2021 has shown a slight increase. In functional public hospitals the number of medical doctors (general practitioner, specialists, emergency doctors, resident doctors, dentists) has slightly increased by 2% in December 2021 compared to January 2021, similarly the number of nurses has slightly increased by 0.1%, while the number of midwives has slightly decreased by 4%.

Analysis of proportions of medical doctors (general practitioner, specialists, emergency doctors, resident doctors, dentists) working at MoHE hospitals versus at MoH hospitals has shown that 24% of medical doctors work in MoHE hospitals, while 76% of medical doctors work in MoH hospitals.

Analysis of availability of medical doctors by gender has shown that lowest proportion of female to male medical doctors is in Ar-Raqqa governorate (3% female and 97% male).

Availability and utilization of health services

As a result of disrupted healthcare delivery and non-functionality of the hospitals, limited provision of health services were observed across governorates even within functional hospitals. A Detailed analysis on services' availability and utilization throughout 2021 by category is provided at governorate level (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 hospitals. The produced analysis provides good indication of the current readiness of the hospitals to provide health services, and to guide focused planning for the procurement and the 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.

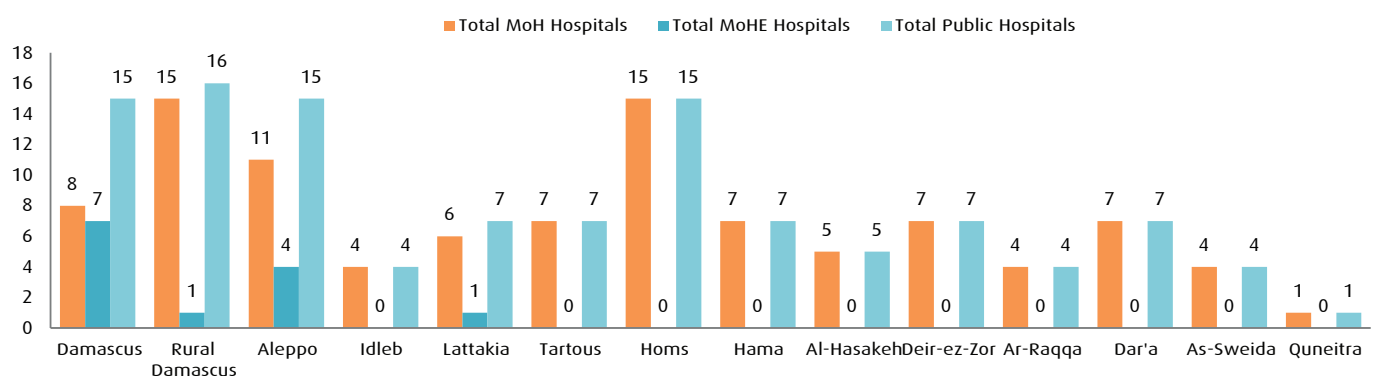
There is a key identified gaps of medicines and consumables at functional hospitals. For instance, there is a gap in: 88% of cancer related medicines, 82% of hepatitis vaccine, 74% of psychotropic medicines, 70% of medicines affecting the blood, etc.

1. Completeness of hospitals reporting

The completeness of reporting from public hospitals across Syria remained at 100%, where all the 114 public hospitals(101 MoH hospitals and 13 MoHE hospitals) continued to report to HeRAMS in December 2021.

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 condition of the public hospitals, availability of resources & services, and available availability of equipment and medicines by the end of December 2021.

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

2. Functionality and accessibility of the public hospitals

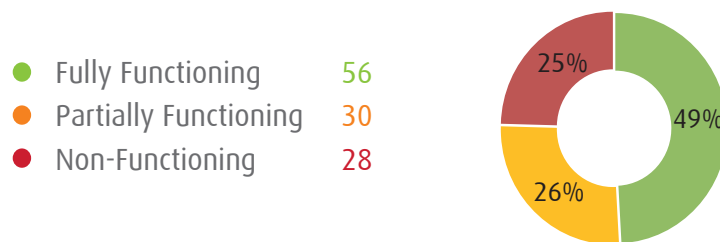
The following sub-sections provide analysis on the functionality and accessibility status of the public hospitals at governorate level.

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.

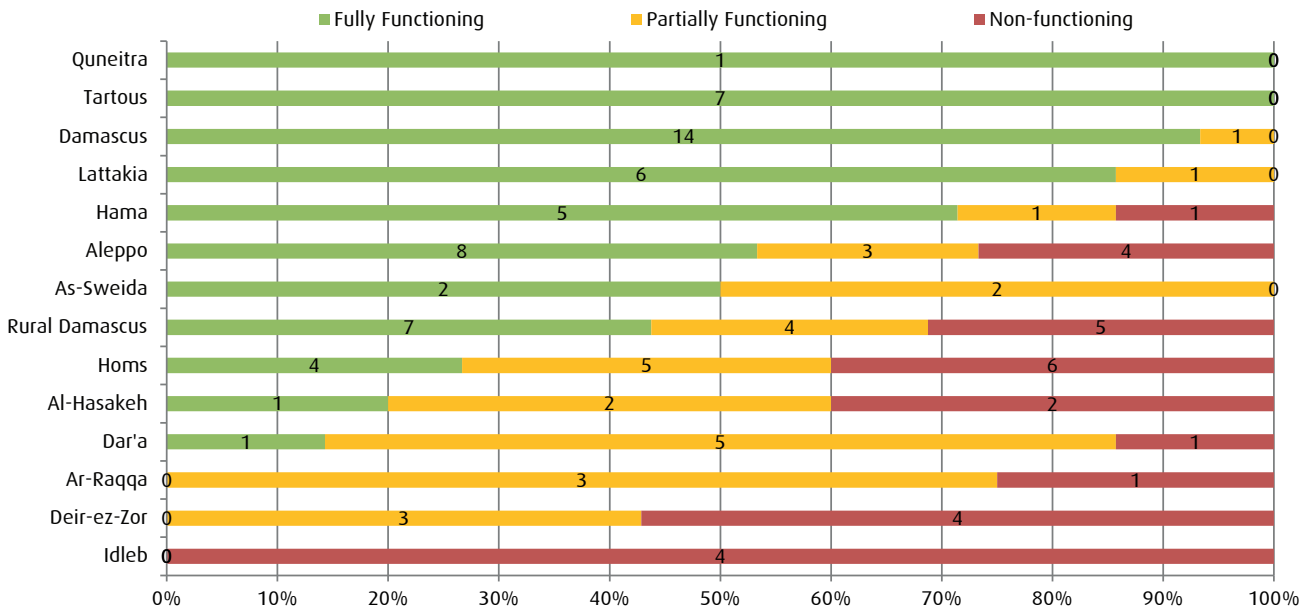
Figure 2: Functionality status - December 2021



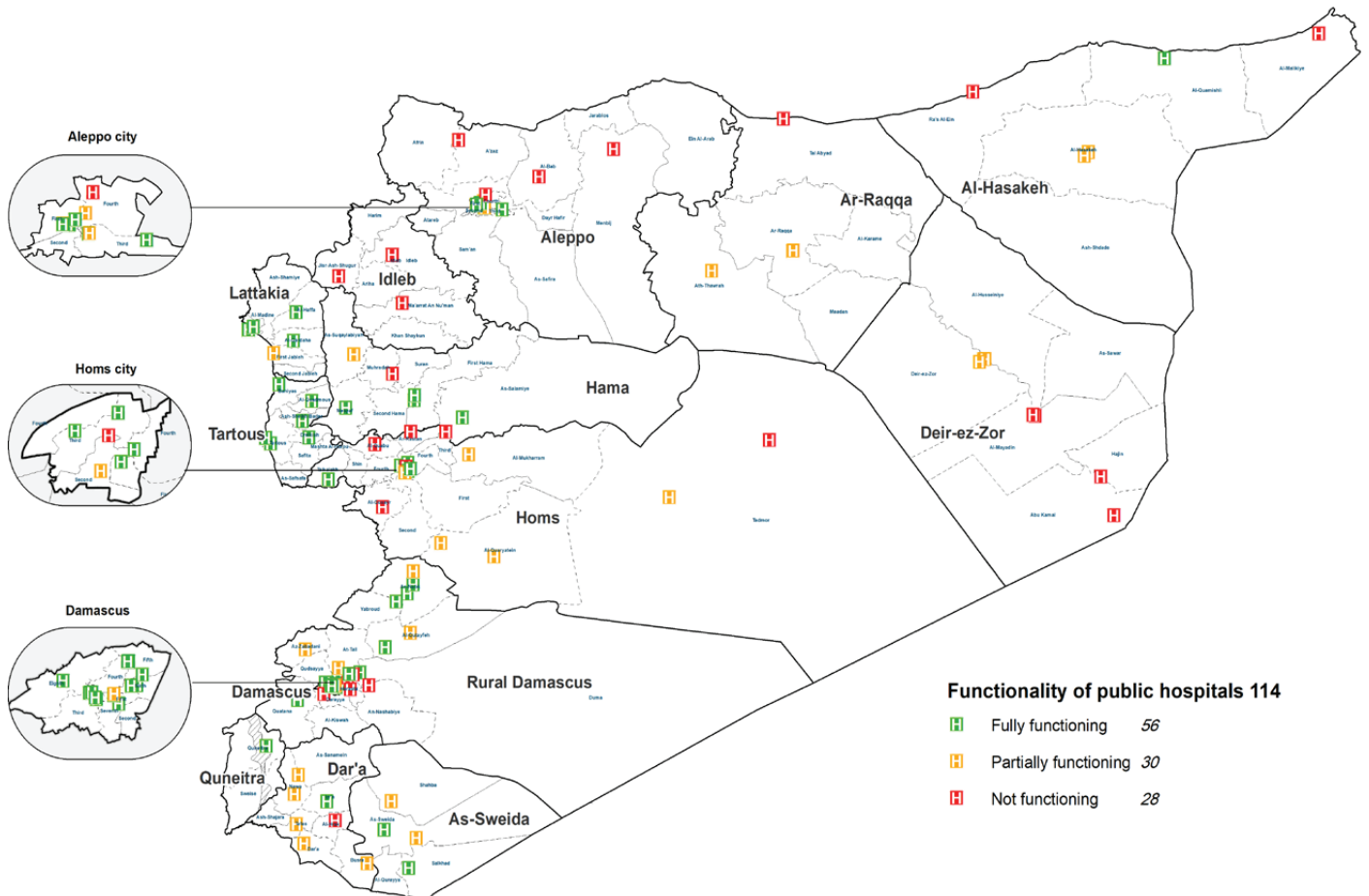
By the end of December 2021, and out of the 114 assessed public hospitals (MoH & MoHE), 49% (56 hospitals) were reported fully functioning, 26% (30 hospitals) were reported partially functioning (i.e., shortage of staff, equipment, medicines, or damage of the building in some cases), while 25% (28 hospitals) were reported non-functioning [Figure 2].

The partially functioning or non-functioning reported hospitals are in 13 out of 14 governorates (93% of governorates). A 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 2021

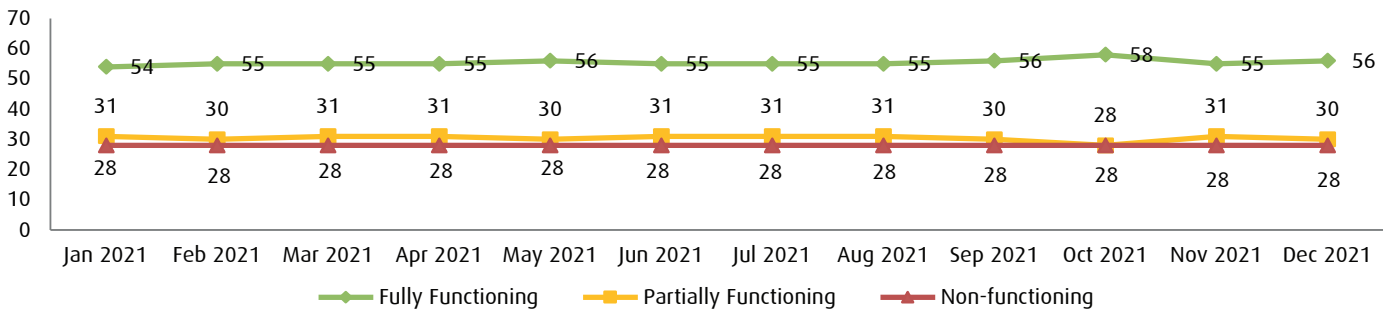


Map 1: Distribution and functionality status of public hospitals, December 2021

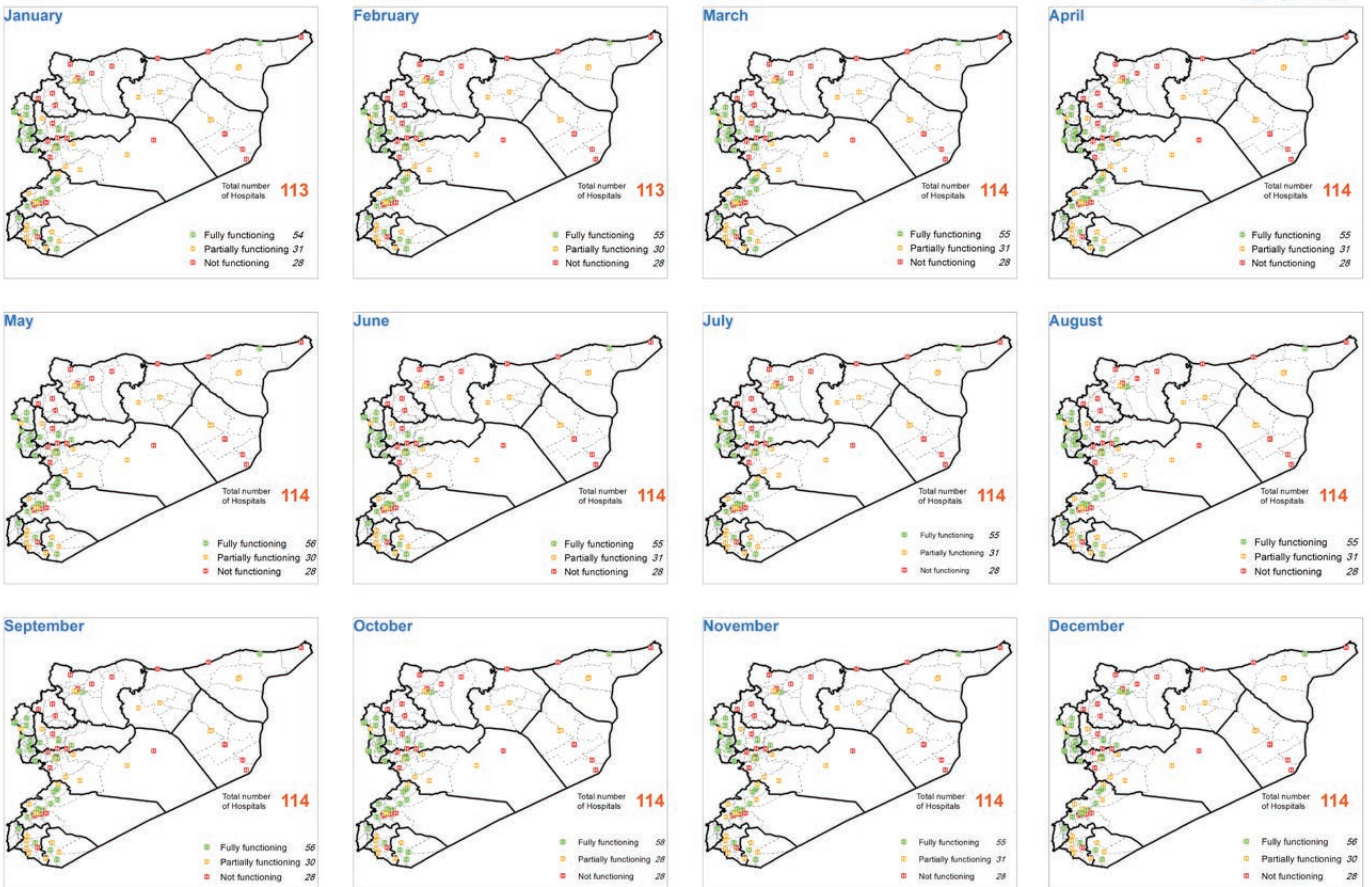


Slight variation of functionality status of public hospitals has been observed during 2021 [Figure 4].

Figure 4: Trend analysis of functionality status of public hospitals, January to December 2021



Map 2: Trend analysis of functionality status of public hospitals, January to December 2021

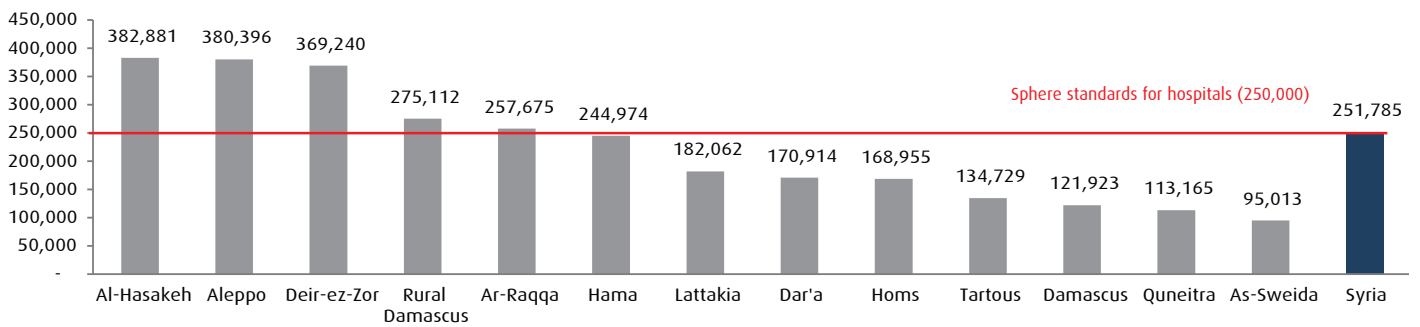


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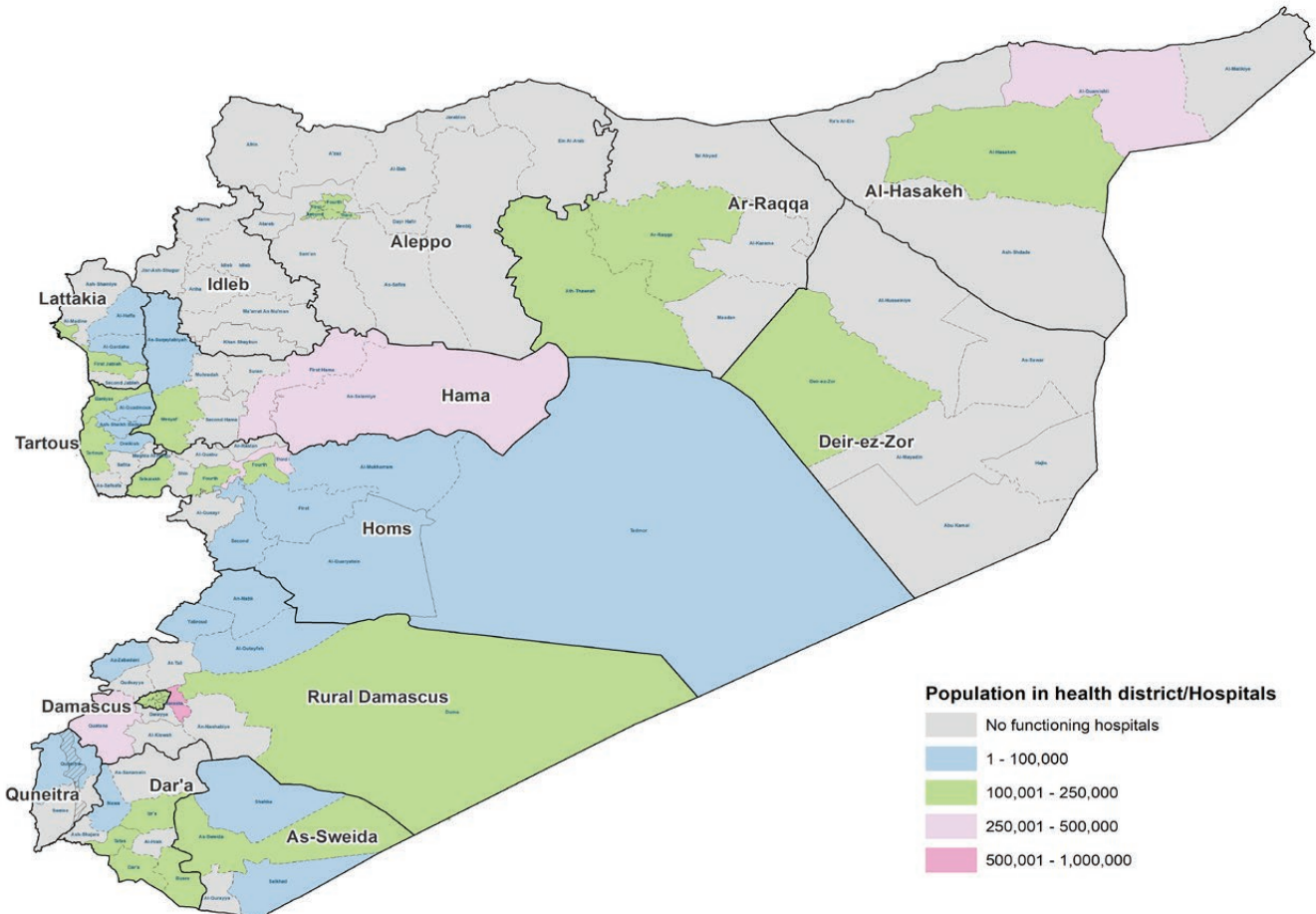
2.2 Density of the public hospitals

Hospital’s density reflects the total number of hospitals relative to population size (based on OCHA HRP 2021), which helps to measure physical access to outpatient health care services. Comparing with Sphere standards for hospitals (250,000), five governorates (Aleppo, Rural Damascus, Ar-Raqqa, Al-Hasakeh, and Deir-ez-Zor) are over the standard density reference; due to high number of populations against the available functioning public hospitals [Figure 5] and Map 3.

Figure 5: Density of the public hospitals per governorate, December 2021



Map 3: Density of the public hospitals per health districts, December 2021



2.3 Special cases

The following public hospitals have been considered as non-functioning, but they are providing health services by non-MoH staff, and no information is available. Data is being collected by cross-border partners:

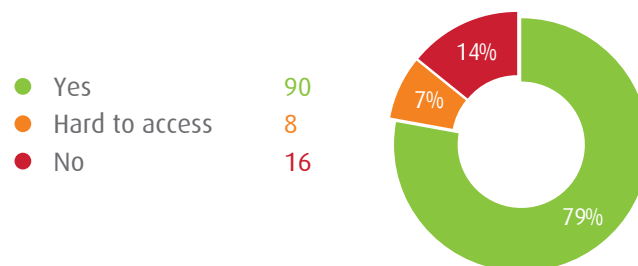
1. “Idleb National Hospital” in Idleb: partially damaged, providing health services by non-MoH staff since 2015.
2. “Ibn Seina Hospital” in Idleb: partially damaged, providing health services by non-MoH staff since 2015.
3. “Ma’arrat An-Nu’man Hospital” in Idleb: partially damaged, providing health services by non-MoH staff since 2016.

3. Accessibility to public hospitals

Accessibility to public hospitals is defined at three levels:

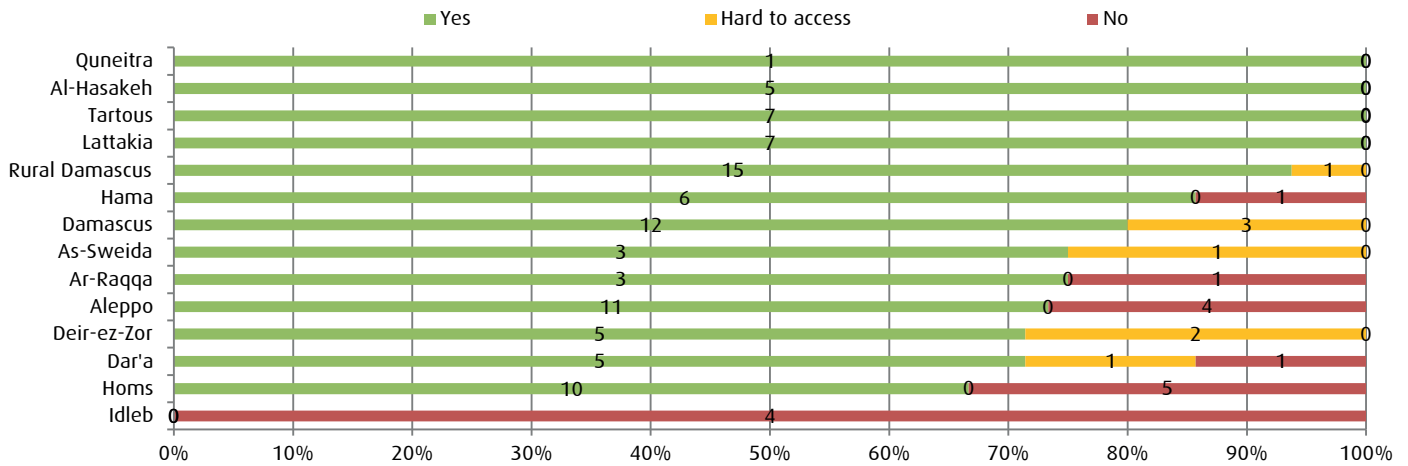
- **Accessible:** a hospital is easily accessible for patients and health staff.
- **Hard-to-reach:** a hospital is hardly reached, due to security situation or long distance.
- **Inaccessible:** a hospital is not accessible because of the security situation, or a hospital is accessible only to a small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

Figure 6: Accessibility status - December 2021

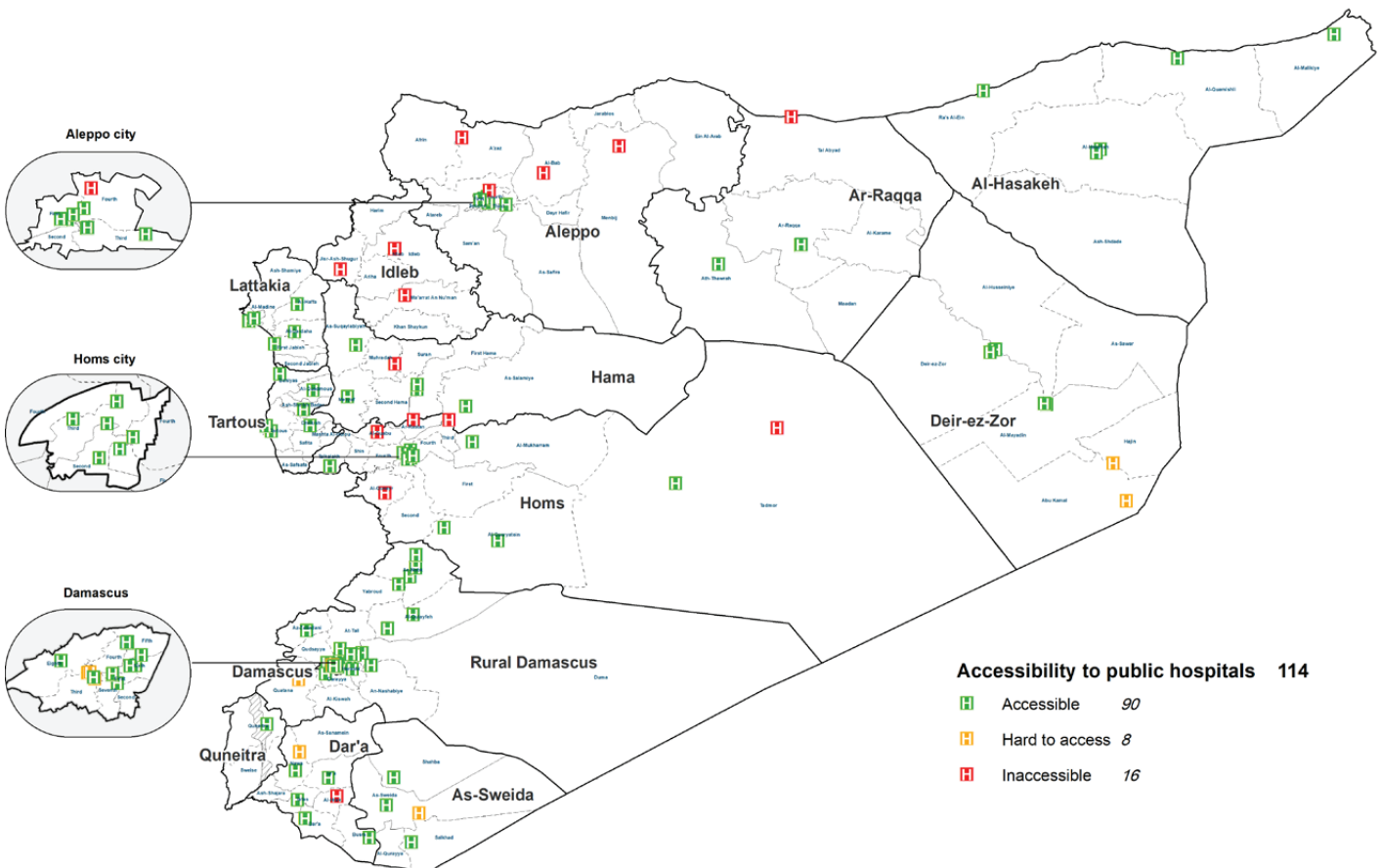


By the end of December 2021, 79% (90 hospitals) were reported accessible, 7% (8 hospitals) were hard-to-access, and 14% (16 hospitals) were inaccessible [Figure 6]. Distribution of public hospitals by accessibility status is presented in Map 4, while more details are provided at governorate’s level in Figure 7.

Figure 7: Accessibility status of the public hospitals per governorate, December 2021

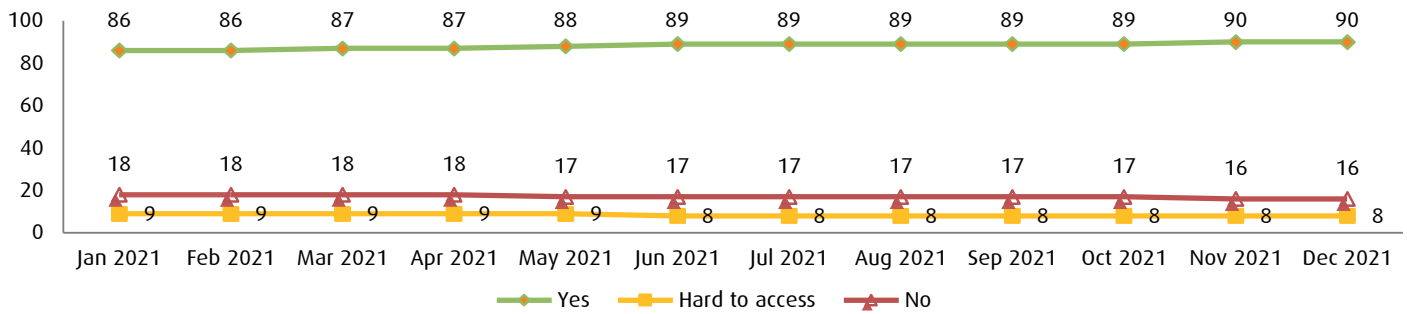


Map 4: Accessibility to public hospitals (MoH & MoHE), December 2021



Trend analysis on accessibility to public hospitals (MoH & MoHE) from January to December 2021, is presented in [Figure 8].

Figure 8: Trend analysis of accessibility to public hospitals, January to December 2021



4. 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 electrical generators, all summarized at governorate level.

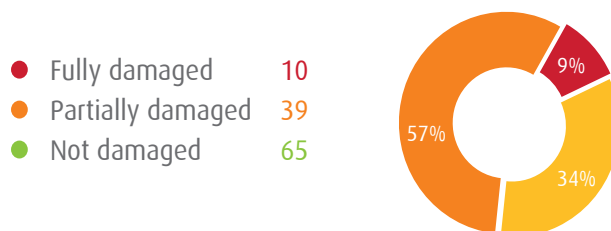
4.1 Level of damage of the hospitals' buildings

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.

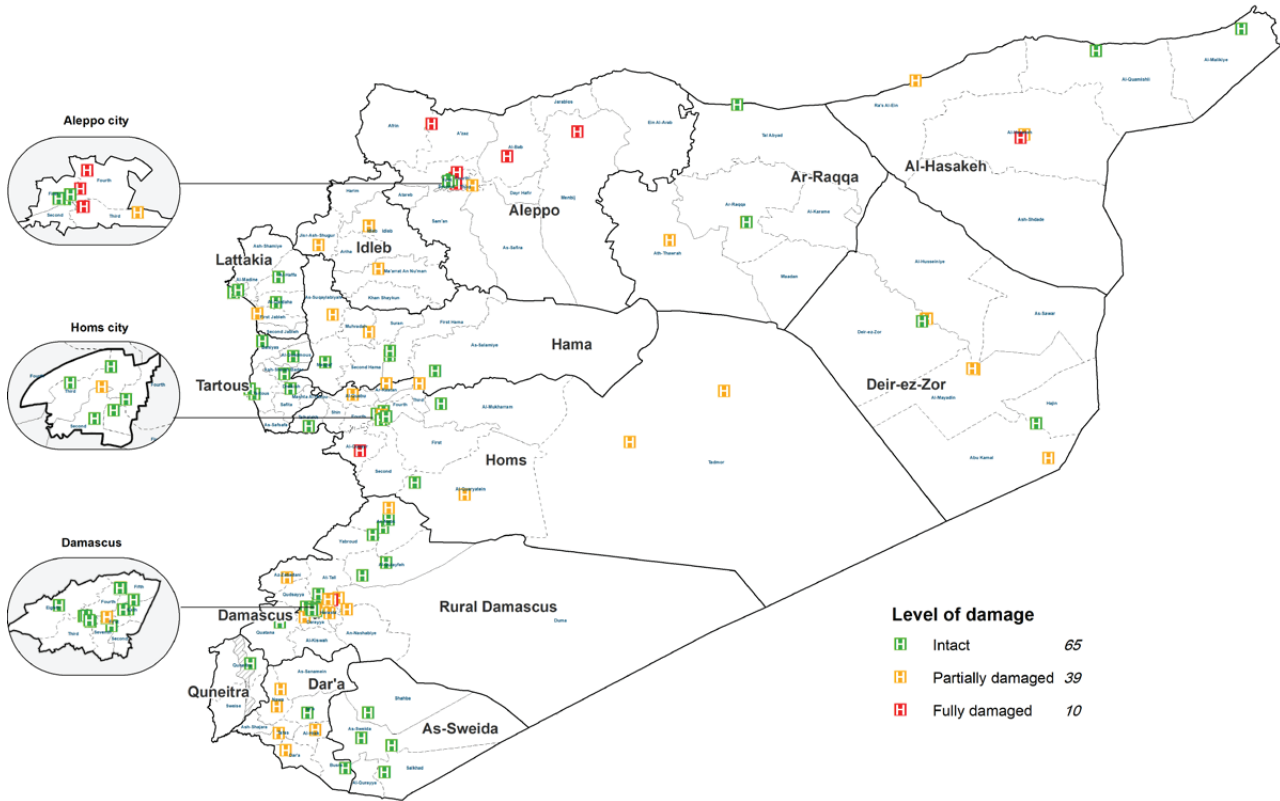
Analysis of the level of damage provides good indication on the potential costs for reconstruction.

Figure 9: level of damage - December 2021



By the end of December 2021, 9% of public hospitals (10 hospitals) were reported fully damaged, 34% of public hospitals (39 hospitals) were reported partially damaged, while 57% of public hospitals (65 hospitals) were reported intact [Figure 9].

Map 5: Level of Damage of Hospitals' buildings, by governorate (MoH & MoHE), December 2021



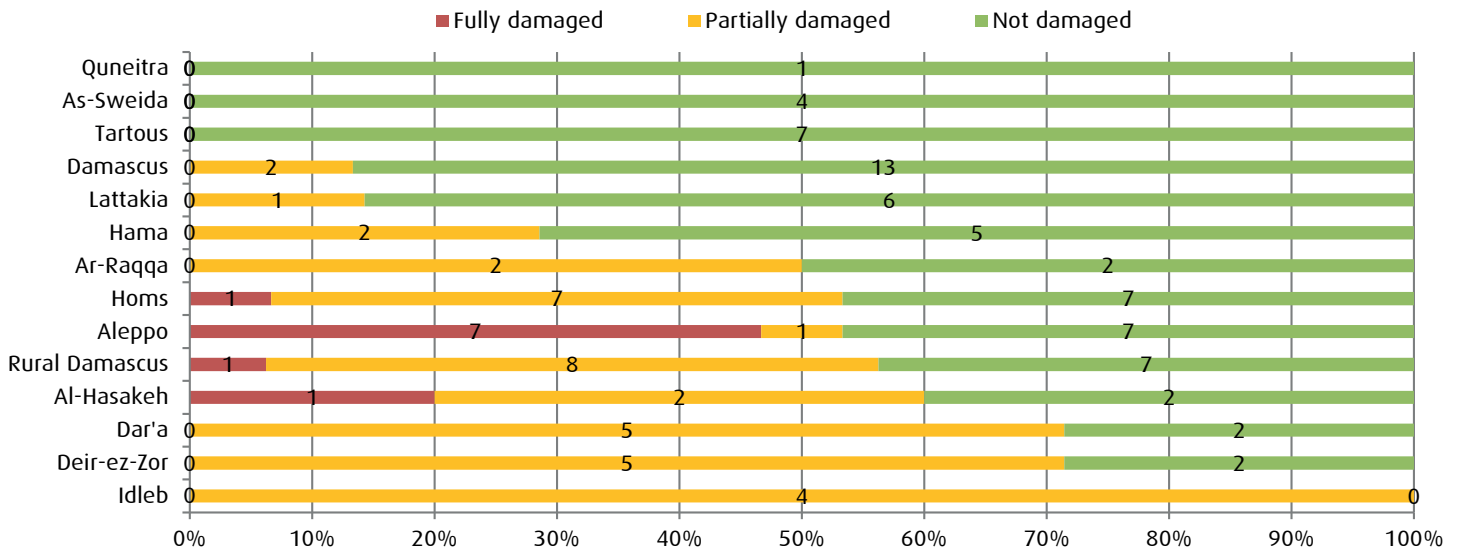
It is essential to cross-analyze the infrastructural damage of the public hospitals in relation to the functionality status (i.e. provision of services). Some hospitals have resiliently continued to provide services regardless of the level of damage of the building and by optimizing intact parts of the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

Out of 39 partially damaged hospitals, 16 hospitals were reported partially functioning and 19 out of service (non-functioning), while 4 hospitals (Kidney hospital in Damascus, Ebn Khaldoun Psychiatric hospital in Aleppo, Ebn Sina Psychiatric hospital in Rural Damascus and Al-Bairouni hospital in Rural Damascus) were reported to be fully functioning providing all services with full staffing capacity.

Out of 10 fully damaged hospitals, 6 were reported non-functioning while 4 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 4 hospitals are available in the HeRAMS data.

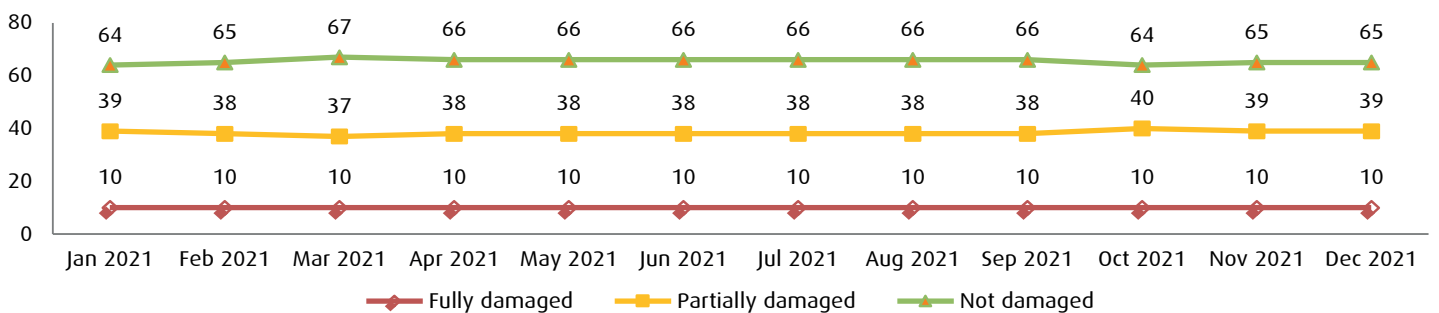
Then again, hospitals with intact buildings (65 hospitals) do not directly reflect full functionality, only 51 of the 65 intact hospitals are fully functioning, while 11 are partially functioning, and 3 hospitals are not functioning, due to limited access of patients and health staff to the facilities 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 2021



Trend analysis on condition of the public hospitals (level of damage of the building) from January to December 2021 is presented in [Figure 11].

Figure 11: Trend analysis of public hospitals' level of damage, January to December 2021



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 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	Al-Bab National hospital	Aleppo	Al-Bab	MoH
5	Manbej hospital	Aleppo	Manbej	MoH
6	Ophthalmology hospital	Aleppo	Third	MoH
7	Children hospital	Aleppo	Third	MoH
8	Al-Qusayr general hospital	Homs	Al-Qusayr	MoH
9	Children hospital	Al-Hasakeh	Al-Hasakeh	MoH
10	Al-Kindi university hospital	Deir-ez-Zor	The fourth	MoHE

Table 2: Special cases of hospitals which are 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	Children hospital	Aleppo	Third	Specialized	Fully damaged	MoH	Ar-Razi hospital + Maternity hospital
3	Children hospital	Al-Hasakeh	Al-Hasakeh	Specialized	Fully damaged	MoH	New medical center in Al-hasakah

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

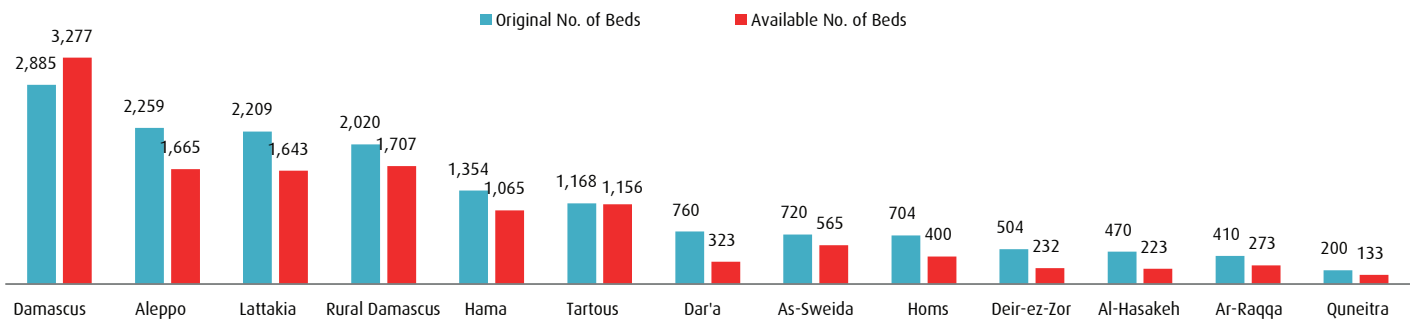
#	Hospital name	Province	District	Type	Condition	Affiliation	New location
1	Al-Bassel-Qara hospital	Rural Damascus	Al-Nabak	General	Partially damaged	MoH	Qara Municipal
2	Children and Obstetrics hospital	Deir-ez-Zor	Deir-ez-Zor	Specialized	Partially damaged	MoH	Al-Assad hospital
3	Al-Furat hospital	Deir-ez-Zor	Deir-ez-Zor	Specialized	Partially damaged	MoH	Al-Assad hospital

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.

4.2 Analysis of the inpatient capacity

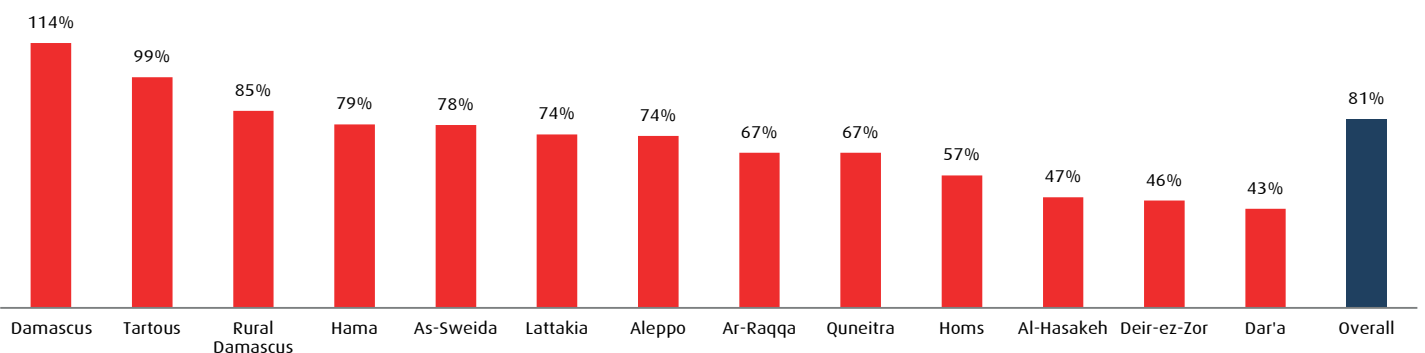
The inpatient capacity has been analyzed in terms of the total number of beds available in functional hospitals by end of 2021 compared to the original number of beds in these hospitals pre-crisis or the maximum inpatient capacity) [Figure 12].

Figure 12: Comparison of inpatient capacity (original vs. available) in functional hospitals per governorate, December 2021



The 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 increase of percentage of operational capacity (114%) in Damascus illustrates that some hospitals have expanded their operational capacity to meet the increased needs of provision health services mainly for COVID-19 response. [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 2021

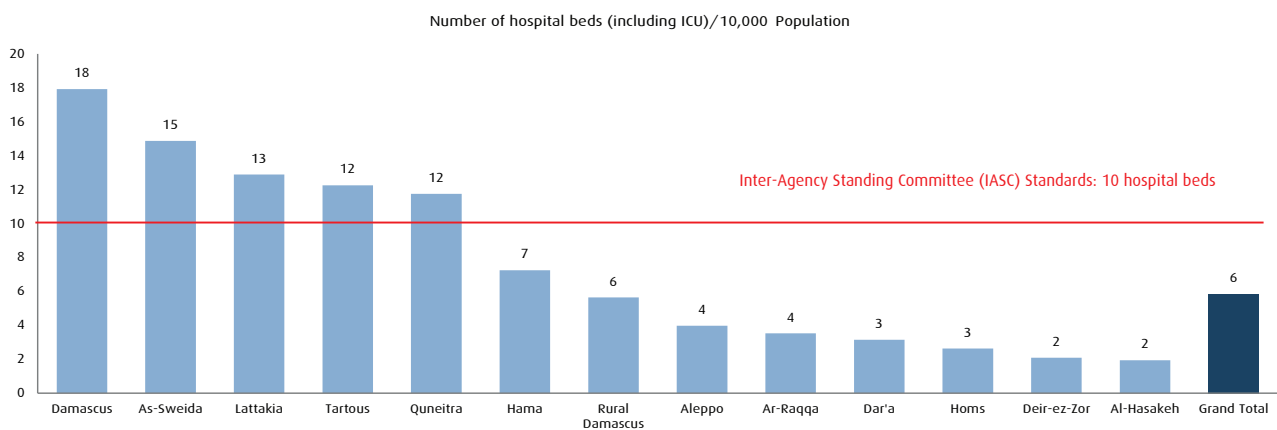


The lowest percentage (43%) of available beds in functional hospital versus original inpatient capacity is observed in Dar'a governorate, mainly reported from Jassem hospital, Nawa hospital, and the Dar'a National hospital.

The following figure shows the Number of Hospital Beds (including ICU)/10,000 Population, given that the benchmark is greater than proportion of 10 health staff per 10,000 population [Inter-Agency Standing Committee (IASC) Standards].

The levels of national and governorates (Hama, Homs, Rural Damascus, Aleppo, Al-Hasakeh, Ar-Raqqa, Dar'a, and Deir-ez-Zor) are below benchmark in [Figure 14].

Figure 14: number of hospital beds (including ICU)/10,000 Population in public hospitals, December 2021

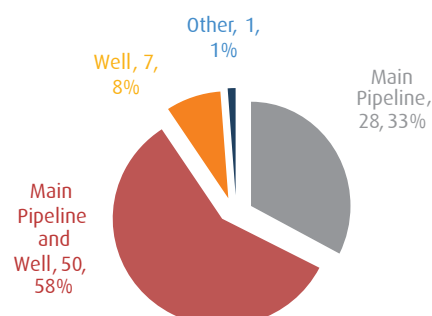


4.3 Water sources and functionality status

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)).

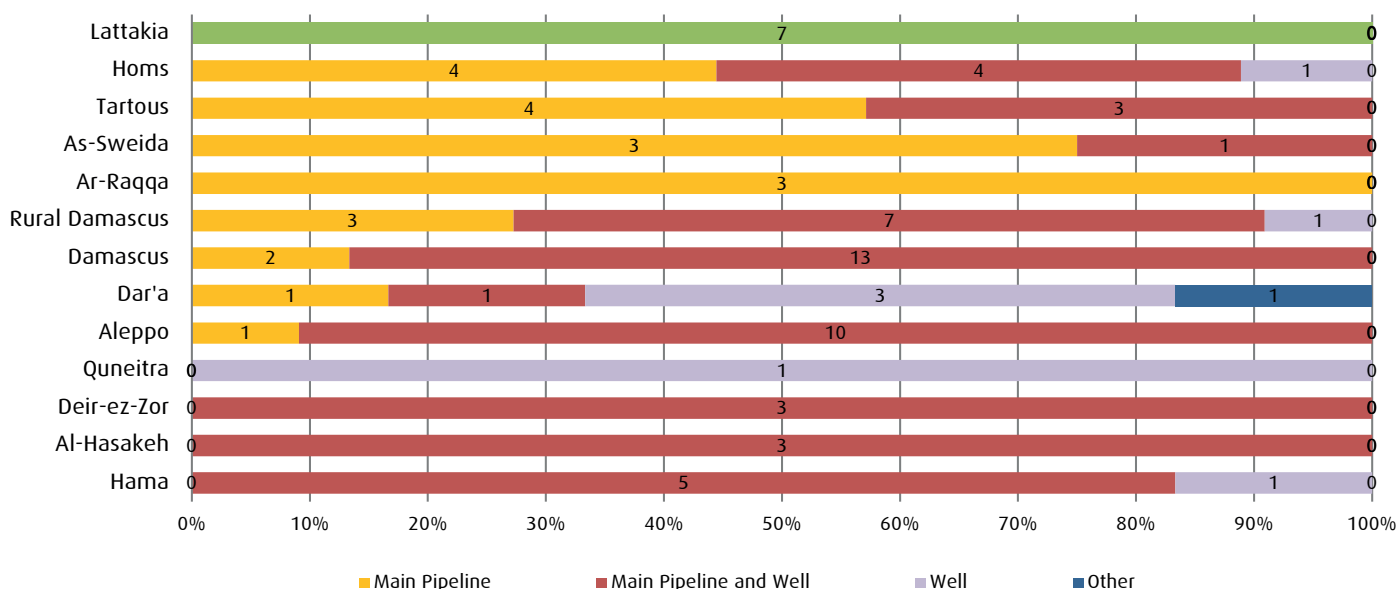
By the end of December 2021 and out of 86 functional public hospitals, 33 (39%) are using main pipelines, 8 (9%) are mainly using wells, 43 (50%) are using both (main pipeline and well), while 2 (2%) are using other sources of water [Figure 15].

Figure 15: Main sources of water, December 2021



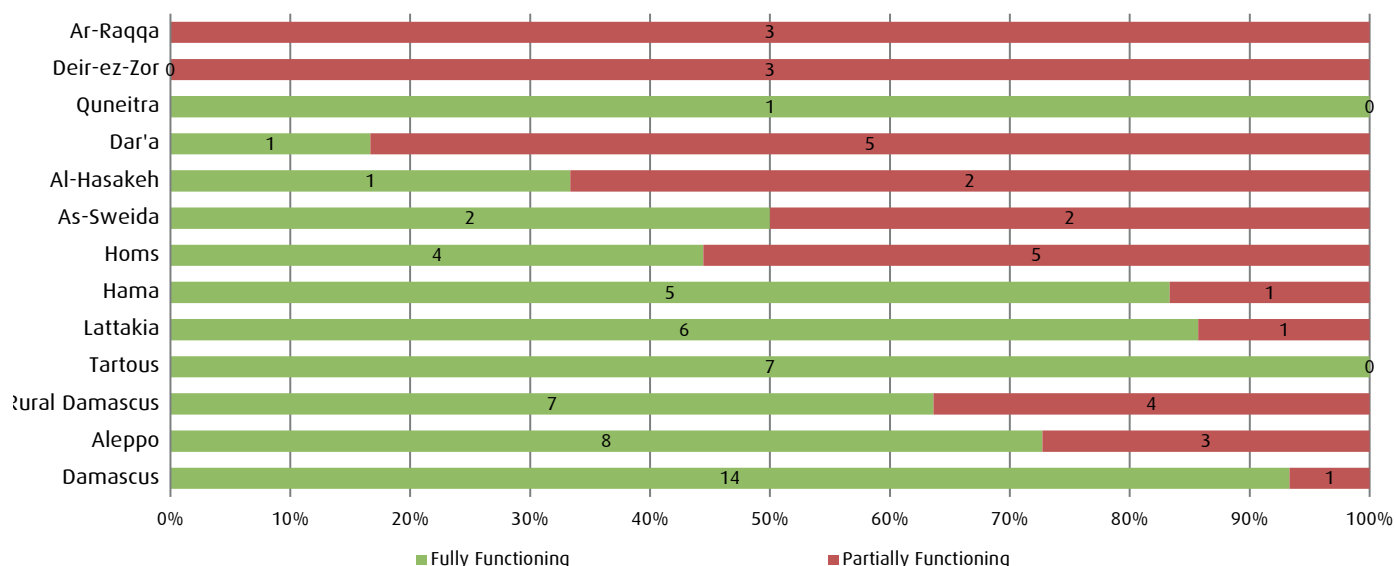
Detailed analysis on distribution of water sources types at functional public hospitals is presented at governorate level on [Figure 16].

Figure 16: Distribution of water sources/ types at functional public hospitals, per governorate, December 2021



Functionality status of the water sources was measured at three levels; fully functional, partially functional, and not functional. [Figure 17], provides details on functionality status of water sources at functional hospitals, (86/114 hospitals) per governorate.

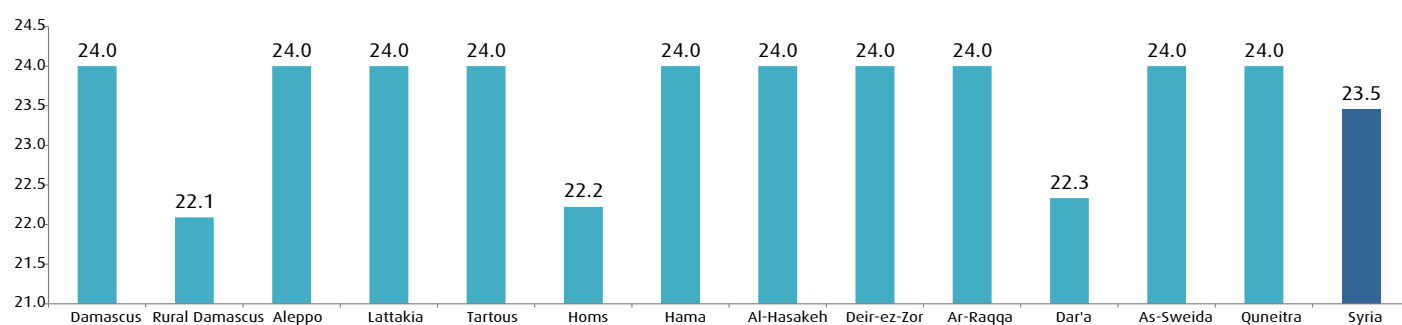
Figure 17: Functionality status of water sources at functional public hospitals, December 2021



4.4 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 electrical generators' power. Availability of electrical generators at functional hospitals was measured by assessing the functional generators out of the total existing generators in the hospital.

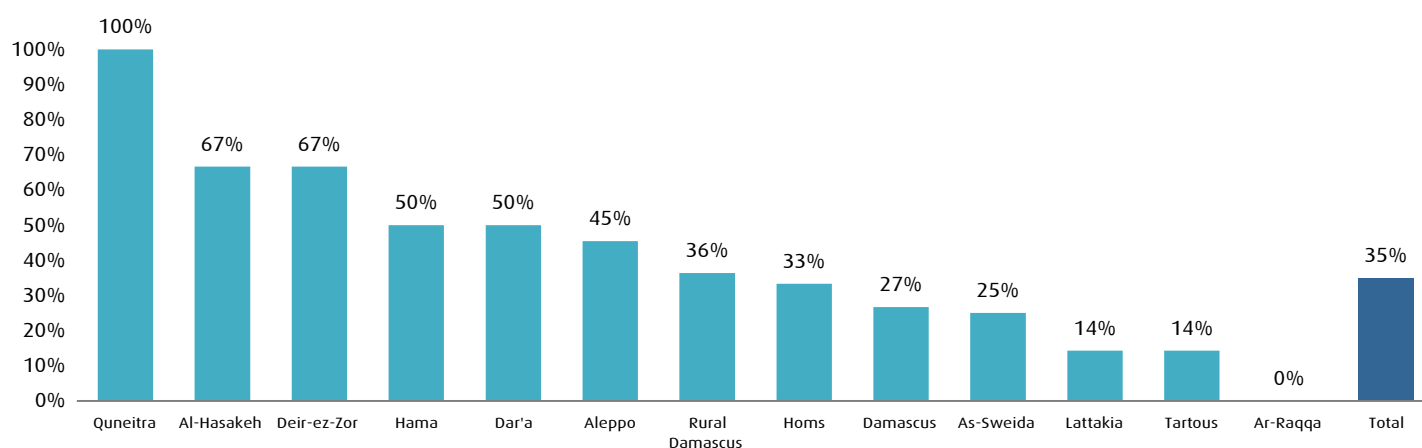
Figure 18: Hours of availability of electricity (from all sources) on average during the day in functional hospitals, December 2021



The percent of hospitals in need for electricity generators out of the total functional hospital is summarized at governorate level [Figure 19].

35% (30 hospitals) of functional public hospitals across Syria are in need for electrical generators, mainly in 12 governorates: Damascus, Rural Damascus, Aleppo, Lattakia, Tartous, Homs, Hama, Al-Hasakeh, Deir-ez-Zor, Dar'a, As-Sweida, and Quneitra.

Figure 19: Percentage of hospitals in need for generators out of total functional hospitals, December 2021

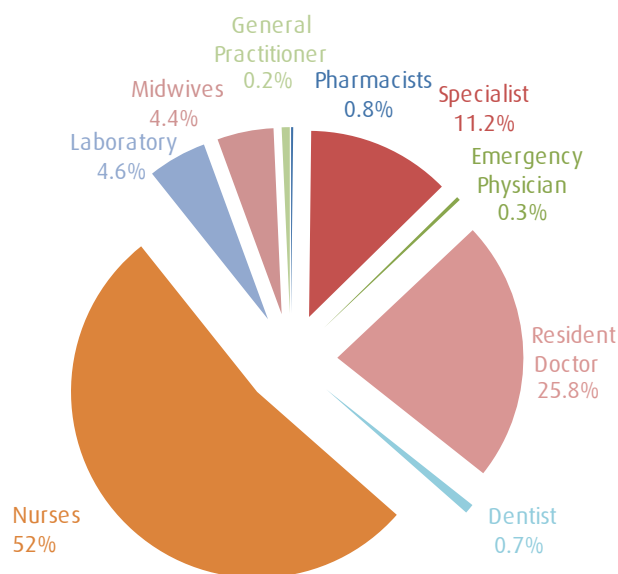


5. Availability of health human resources

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 20: Proportion of health staff in hospitals, December 2021



By the end of December 2021, the proportion of different categories of health staff in MoH and MoHE hospitals including the fully and partially functioning hospitals (86/114 hospitals) is as the following: The general practitioner (0.2%), emergency physician (0.3%), dentists (0.7%), pharmacists (0.8%), midwives (4.4%), laboratory (4.6%), specialists (11.2%), resident doctors (25.8%), and nurses (52%); [Figure 20].

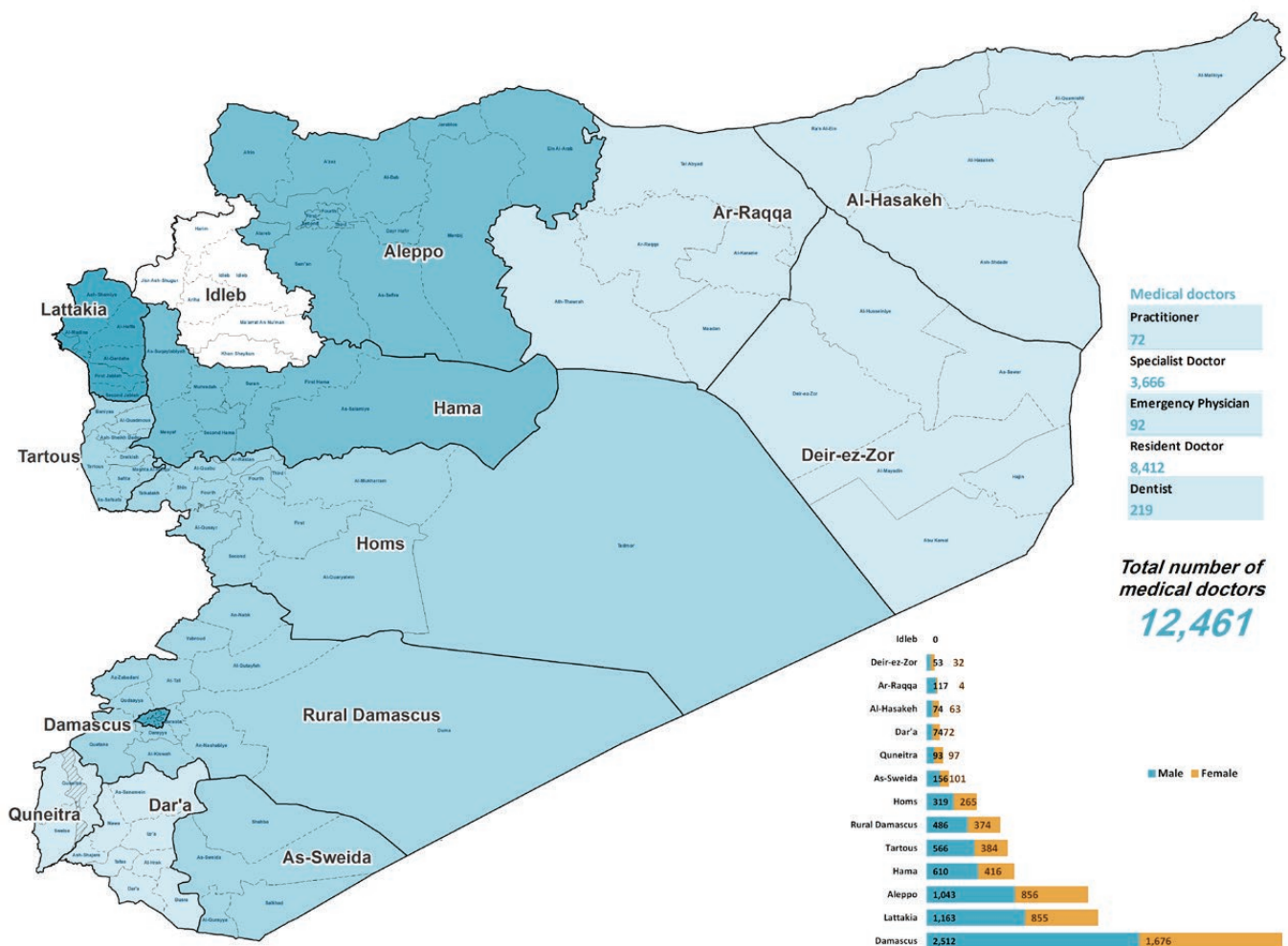
Table 4: Availability of human resources of functioning public hospitals, per governorate, December 2021

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	45	15	745	18	3,217	104	3,753	365	141	85	523	1,290	2,952
Rural Damascus	14	26	26	3	221	4	554	12	1,425	136	93	26	142	474	939
Aleppo	2	29	41	5	380	3	1,436	3	823	158	71	15	204	314	990
Idleb															
Lattakia	4	44	48	9	462	16	1,391	44	2,674	144	237	33	260	522	1,197
Tartous	4	36	56	8	387	22	427	10	2,341	209	111	29	284	939	1,709
Homs	10	25	29	5	199	12	291	13	1,398	133	195	12	59	642	359
Hama	3	33	40	7	321	10	584	28	1,946	168	268	18	160	898	868
Al-Hasakeh	0	3	2	2	36	0	94	0	248	24	29	1	22	92	120
Deir-ez-Zor	0	2	2	0	36	0	45	0	548	62	91	0	10	237	270
Ar-Raqqa	32	10	21	1	55	2	0	0	271	17	25	10	55	63	151
Dar'a	1	7	2	1	41	1	93	0	412	29	47	5	26	143	215
As-Sweida	2	9	7	2	93	1	142	1	1,017	49	105	7	83	267	590
Quneitra	0	2	3	1	39	3	138	4	113	10	15	4	12	70	226
Grand Total	72	270	322	59	3,015	92	8,412	219	16,969	1,504	1,428	245	1,840	5,951	10,586

* Health workers in the hospitals with university degrees (engineer, law, trade, and economics)

The availability and level of medical staffing (by category and gender) in public hospitals is summarized at governorate's level in Map 6. The total number of health staff in the Map 6 indicates only the categories (general practitioner, specialists, emergency doctors, resident doctors, dentists).

Map 6: Availability of medical doctors in functional public hospitals, by end of December 2021, per governorate



5.1 Availability of medical staff by category and affiliation

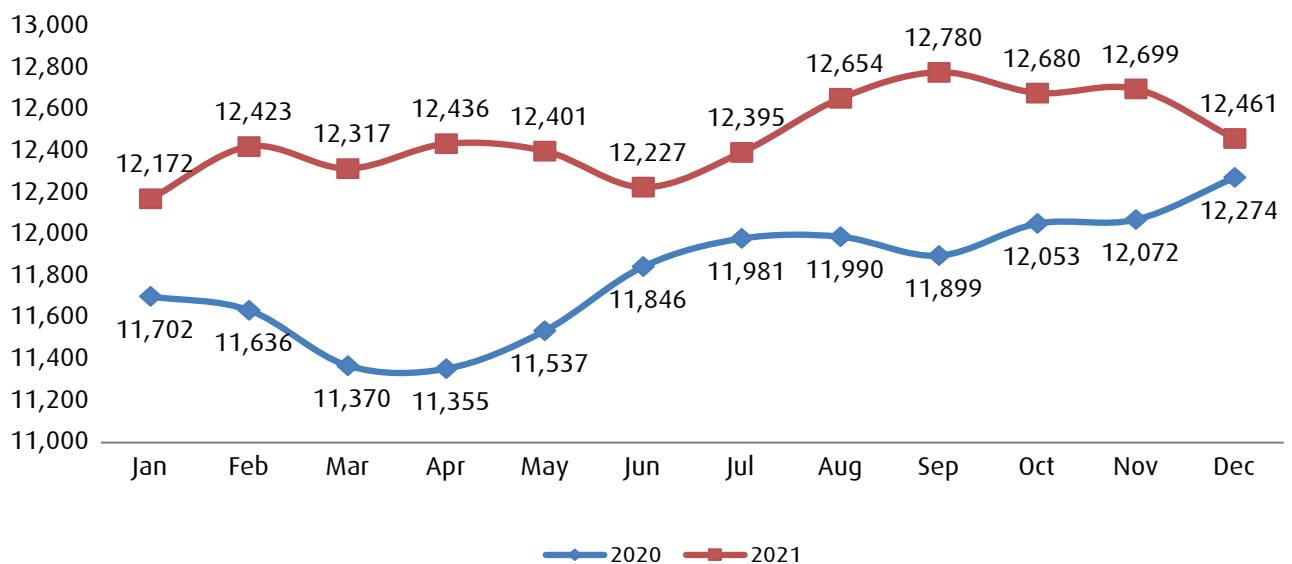
The availability of medical staff in functional public hospitals is analyzed by category (i.e., medical doctors, nurses, and midwives) and affiliation (MoH vs. MoHE hospitals), as follow:

i. Trend analysis of medical doctors (a total of general practitioner, specialists, emergency doctors, resident doctors, dentists):

The number of medical doctors in public hospitals has slightly increased by 2% in December 2021 (12,461 medical doctors) compared to January 2021 (12,172 medical doctors).

[Figure 21] shows the trend analysis of reported medical doctors during 2020 compared to 2021, in functional public hospitals.

Figure 21: Trend analysis of the number of doctors (a total of general practitioner, specialists, emergency physicians, resident doctors, and dentists) in public hospitals during 2020 and 2021

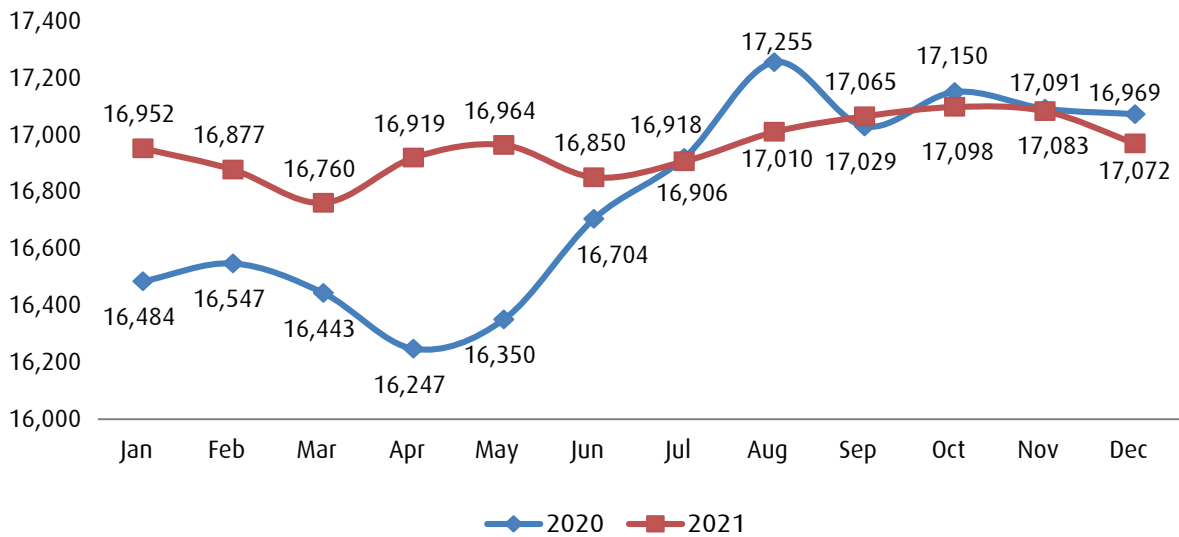


ii. Trend analysis of nurses:

The number of nurses in public hospital has slightly increased by 0.1% in December 2021 (16,969 nurses), compared to January 2021 (16,952 nurses).

[Figure 22] shows trend analysis for the reported number of nurses during 2020 compared to 2021.

Figure 22: Trend analysis of the number of nurses in public hospitals during 2020 and 2021

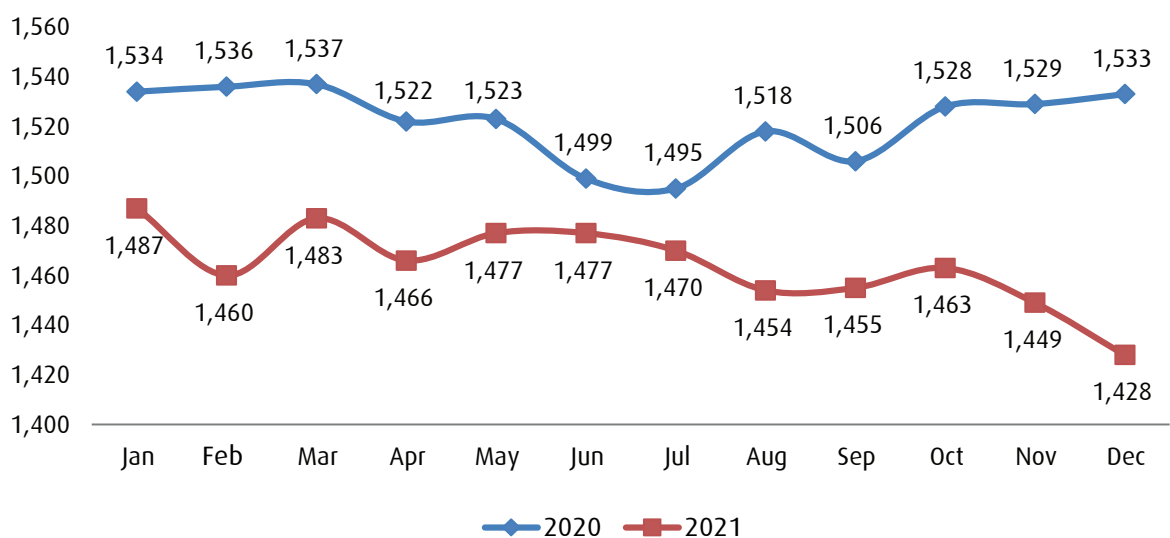


iii. Trend analysis of midwives:

The number of midwives in public hospital has slightly decreased by 4% in December 2021 (1,428 midwives), compared to January 2021 (1,487 midwives).

[Figure 23] shows trend analysis for the reported number of midwives during 2020 compared to 2021.

Figure 23: Trend analysis of the number of midwives in public hospitals during 2020 and 2021



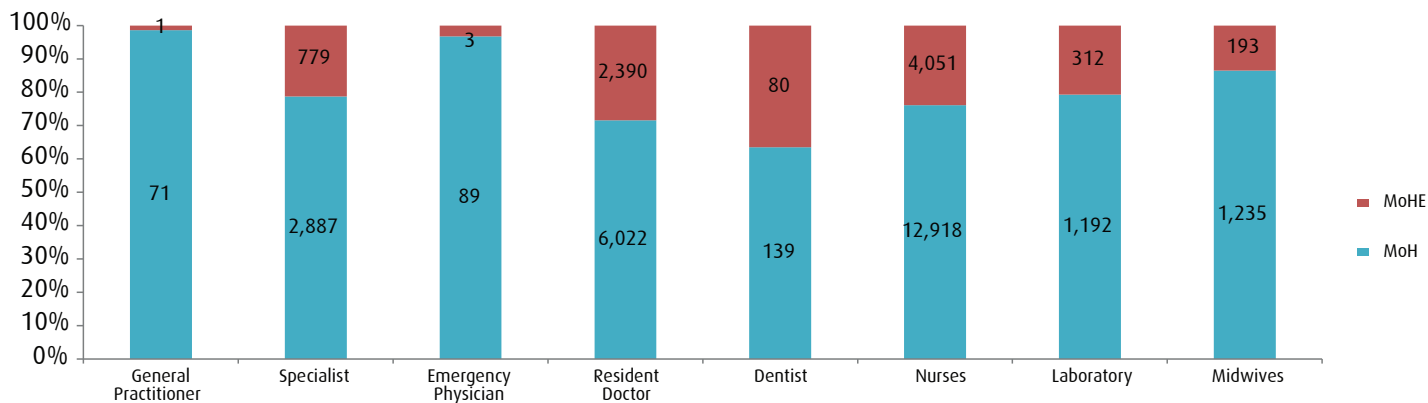
5.2 Availability of medical doctors by affiliation (MoH vs. MoHE hospitals)

Analysis of proportions of medical doctors (general practitioner, specialists, emergency physician, resident doctors, dentists) working at MoHE hospitals versus MoH hospitals in December 2021 has shown that 28% (3,253 medical doctors) work in MoHE, while 74% (9,208 medical doctors) work in MoH hospitals.

1% out of total 72 general practitioner work in MoHE hospitals, 21% out of total 3,666 specialists work in MoHE hospitals, 3% out of total 92 emergency physician work in MoHE hospitals, 28% out of total 8,412 resident doctors work in MoHE hospitals, 37% out of total 219 dentist work in MoHE hospitals, and 23% out of total 18,397 nurses & midwives work in MoHE hospitals.

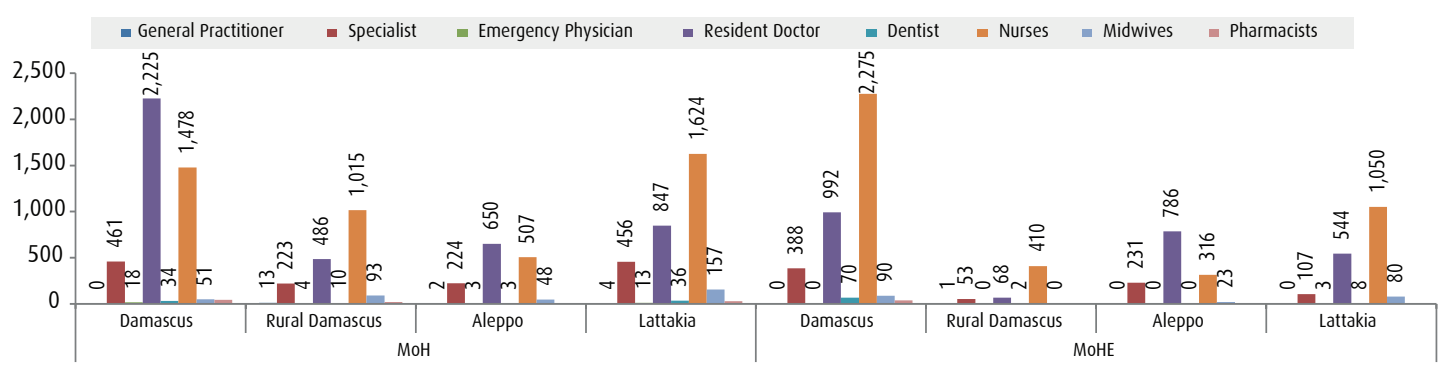
Details on proportions and numbers of key staff work in MoH vs. MoHE hospitals, by end of December 2021, are presented in [Figure 24].

Figure 24: Proportions and numbers of key staff work in MoH vs. MoHE hospitals, December 2021



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 25].

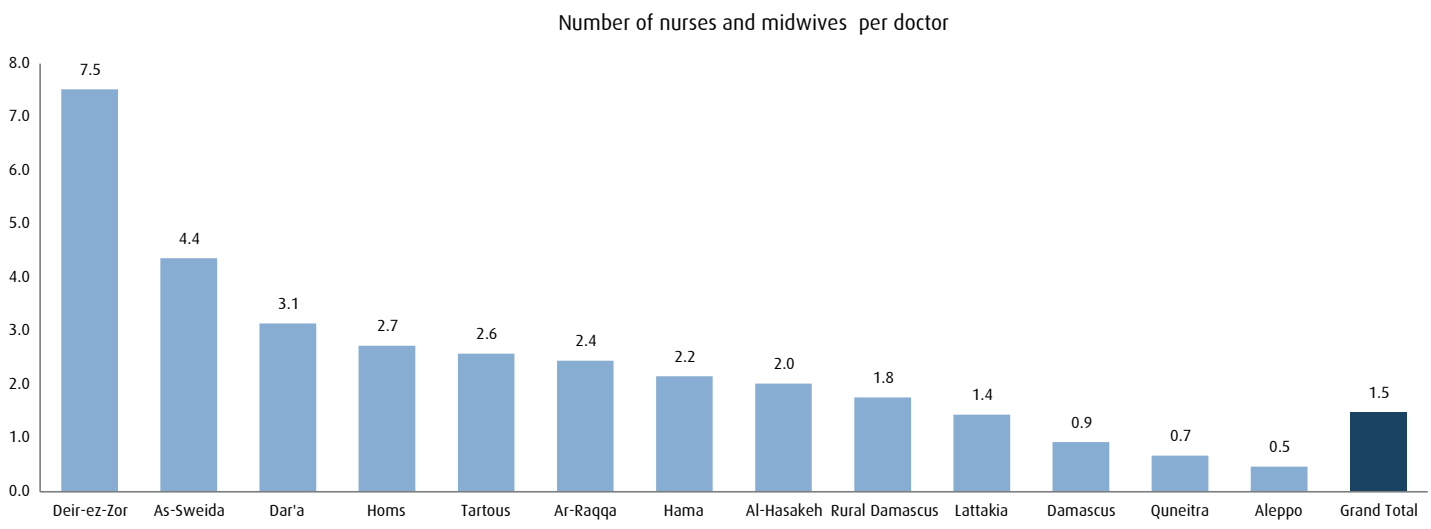
Figure 25: Comparison of the medical staff of MoH vs. MoHE hospitals, December 2021



The following 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).

At national level on the one hand and at five governorates level on the other hand (Rural Damascus, Lattakia, Damascus, Quneitra, and Aleppo) are below the benchmark in [Figure 26].

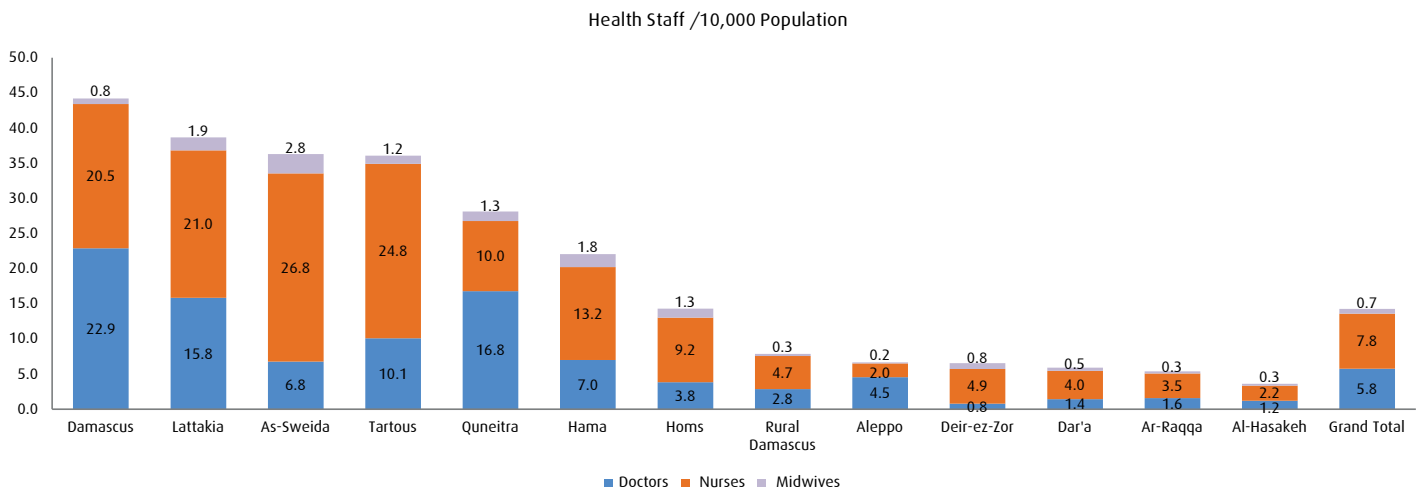
Figure 26: Number of nurses and midwives per doctor in public hospitals, December 2021



The following figure shows the number of health staff (doctors, nurses, and midwives) per 10,000 population, given that the benchmark is greater than 22 health staff per 10,000 population [Inter-Agency Standing Committee (IASC) Standards].

The national levels in addition to eight governorates (Hama, Homs, Deir-ez-Zor, Rural Damascus, Aleppo, Dar'a, Al-Hasakeh, and Ar-Raqqa) are below or equal benchmark in [Figure 27].

Figure 27: number of health staff (doctors, nurses, and midwives) per 10,000 population in public hospitals, December 2021



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

By analyzing the proportion of male to female medical doctors (general practitioner, specialists, emergency physician, resident doctors, dentists), lowest proportions are seen in Ar-Raqqa governorate (15% female and 85% male). [Figure 28].

Figure 28: Proportion of Doctors (Specialists, Emergency Physicians, Resident Doctors, Dentists), by gender, per governorate, December 2021

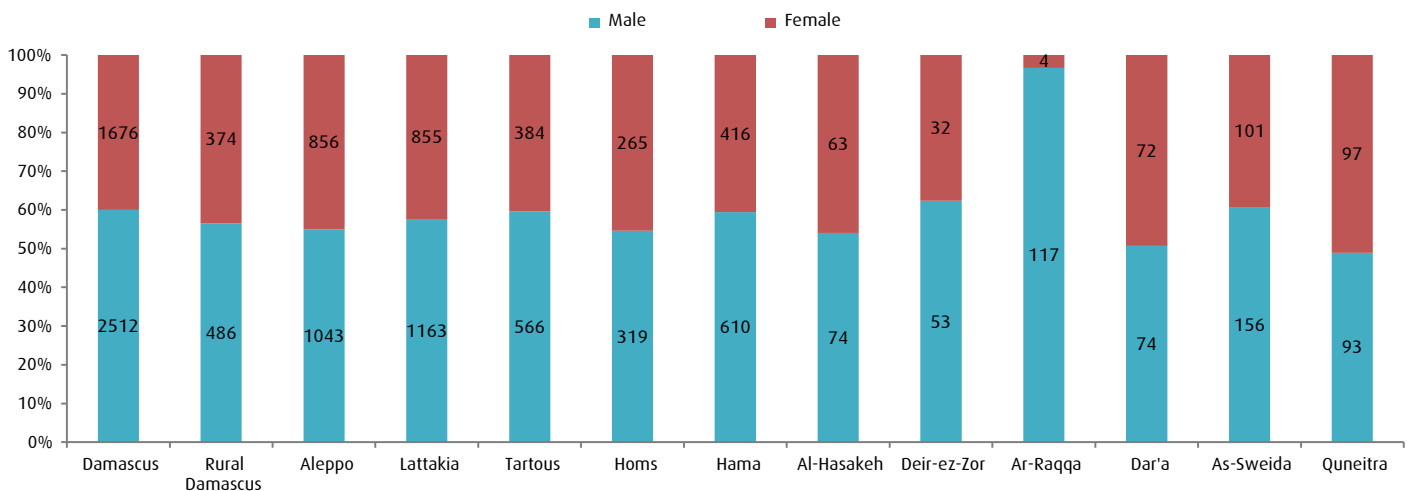
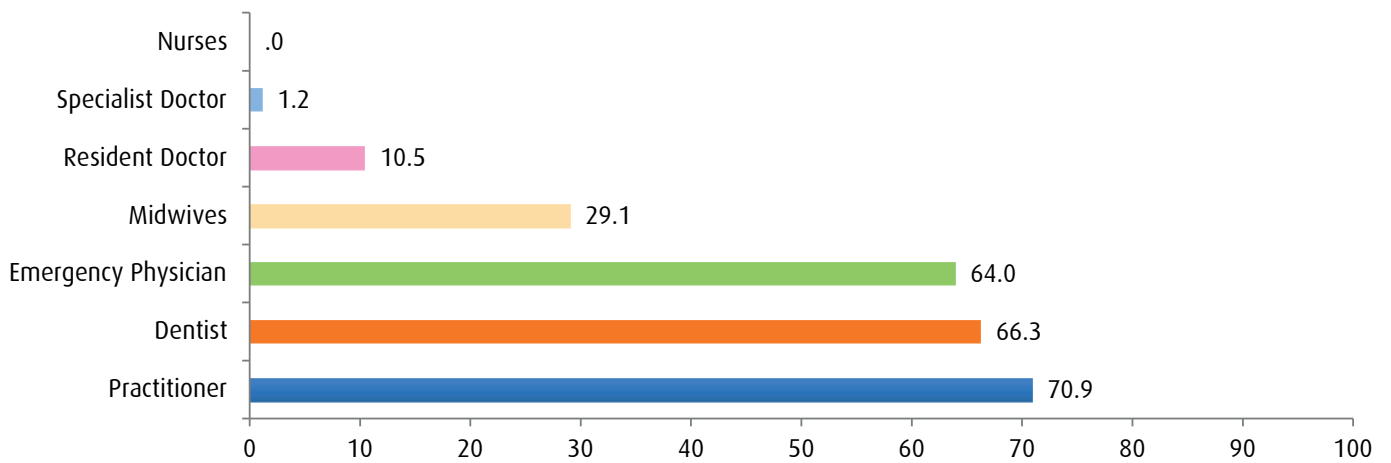


Figure 29: Percentage of lack of medical staff in functioning public hospitals (gaps), December 2021



6. Availability and utilization of the health services

The availability of essential health 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).

- Only 44.2% of public hospitals facilities meet the 70% service availability threshold.
- In terms of the availability of health services, Quneitra was the best, then Lattakia, and then Tartous. The worst was Idlib, then Deir-ez-Zor, and then Al-Hasakeh.

Analysis of availability of health services has been conducted across all functional public hospitals (MoH & MoHE): (86/114 hospitals). 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 30,31].

Figure 30: Availability of health services in the functional public hospitals, December 2021

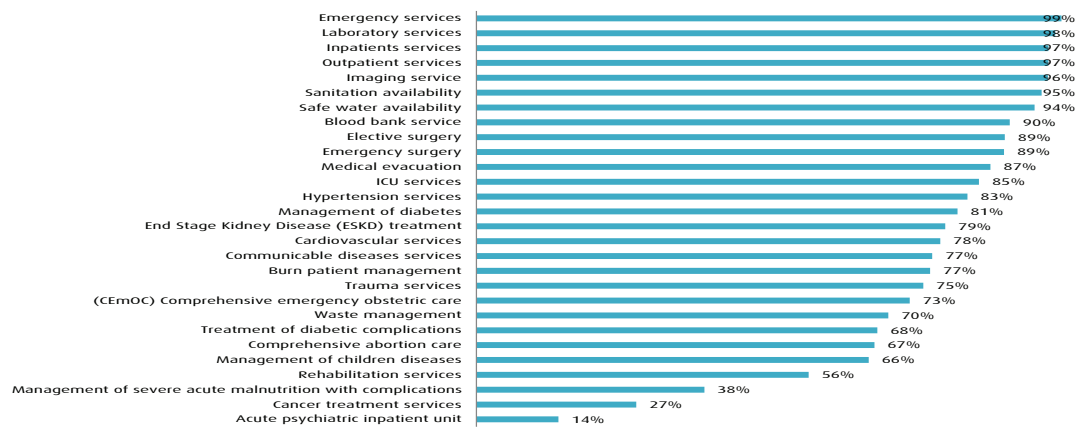
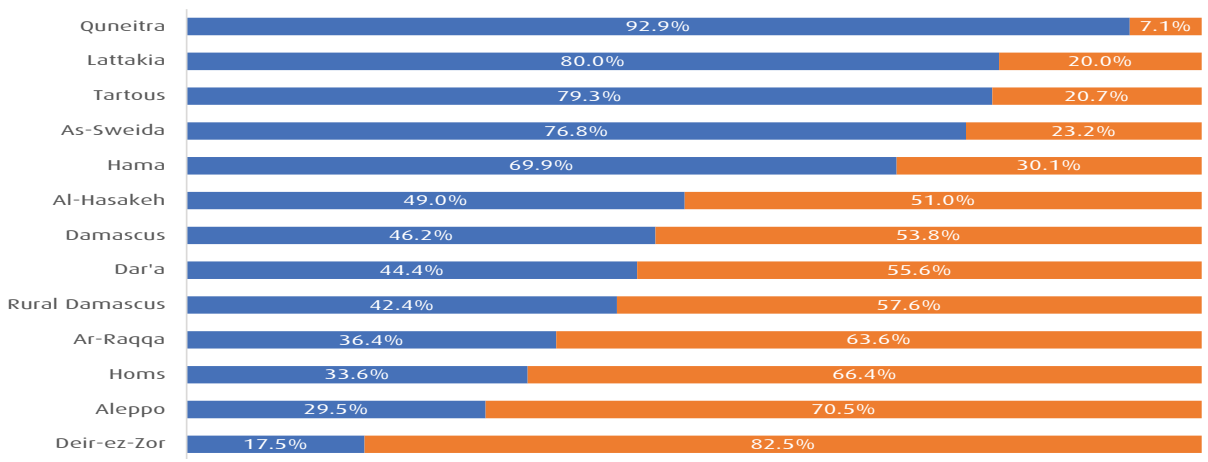


Figure 31: Availability of health services in the functional public hospitals, per governorate



**Detailed information on availability of services per governorate is available in the HeRAMS data. 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 2021 per governorate [Figure 32]. The total estimated caseload in functional public hospitals is 7,566,249 in 2019, while 5,679,543 in 2020 and 6,024,533 in 2021.

Figure 32: Estimated caseload of functional public hospitals (outpatient consultations and emergency cases), January to December 2021

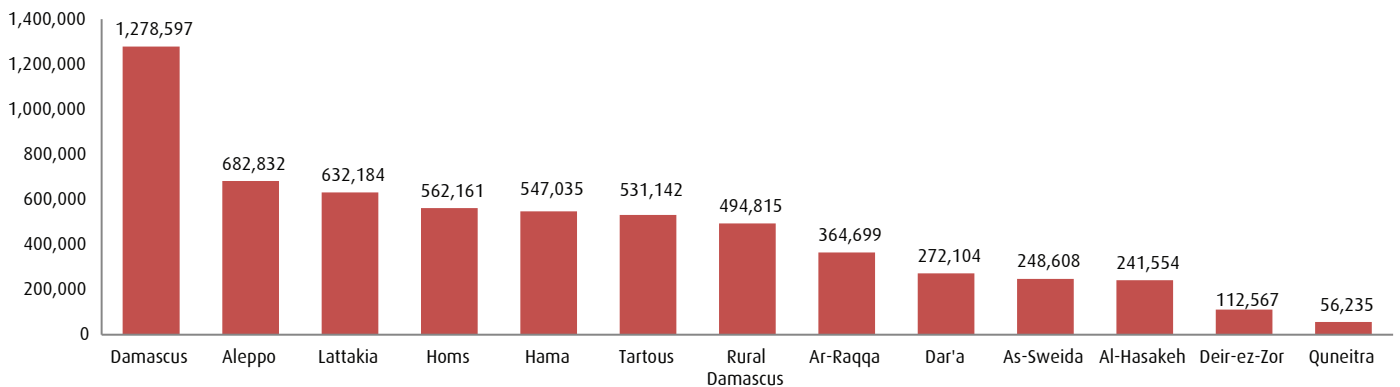
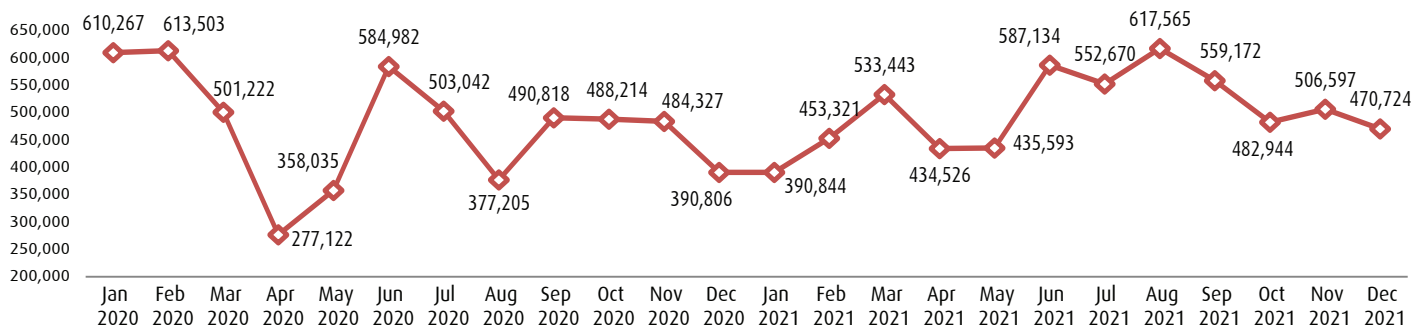


Figure 33: Trend analysis of estimated caseload in public hospitals, January 2020 to December 2021



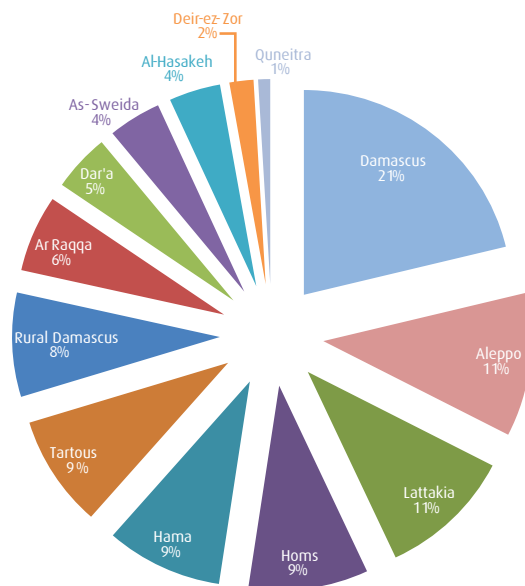
Most of healthcare services had a remarkable drop in April 2021 ; due to the limited medical visits in Ramadan (fasting month).

The proportion of workload of functional hospitals per governorate is provided on [Figure 34].

Detailed analysis on utilization of the essential 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 34: Proportions of workload during 2021, per governorate



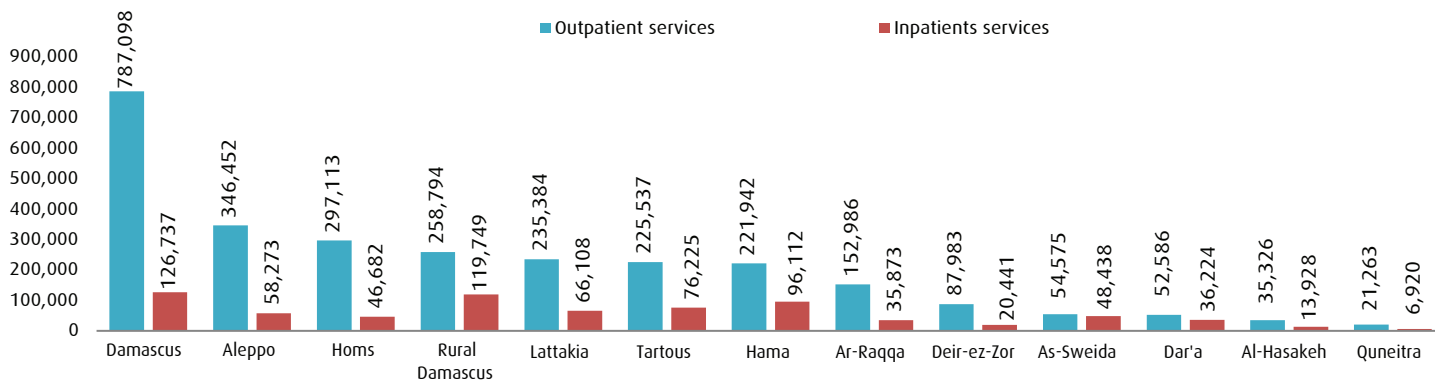
6.1 General clinical services

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

i. Outpatient and inpatient

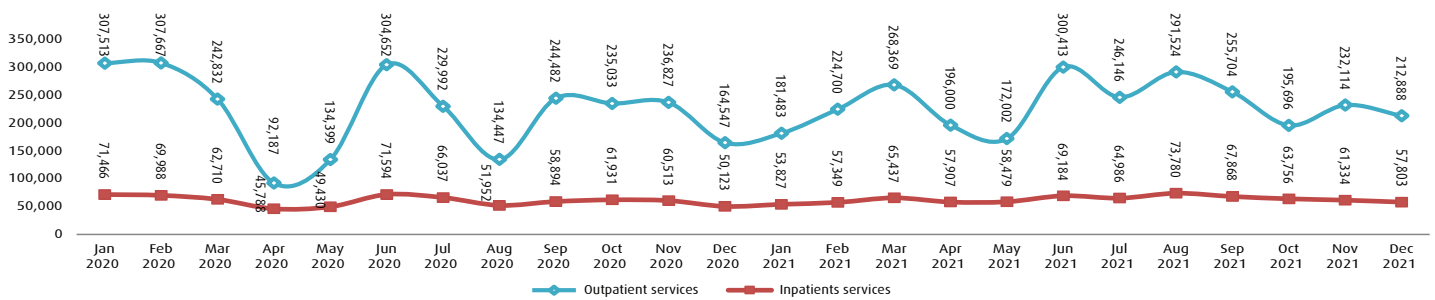
The number of outpatients to inpatients was assessed at a hospital level, and the total numbers reported in December 2021 were summarized and analyzed at governorate level [Figure 35].

Figure 35: The number of Outpatient and Inpatient in public hospitals, January to December 2021



Trend analysis of total reported numbers of outpatient and inpatient from functional public hospitals (MoH & MoHE), from January 2020 to December 2021, is presented in [Figure 36]. The total reported outpatients are 3,799,829 in 2019, while 2,634,578 in 2020, and 2,777,039 in 2021, the inpatients are 911,186 in 2019, while 720,426 in 2020 and 751,710 in 2021.

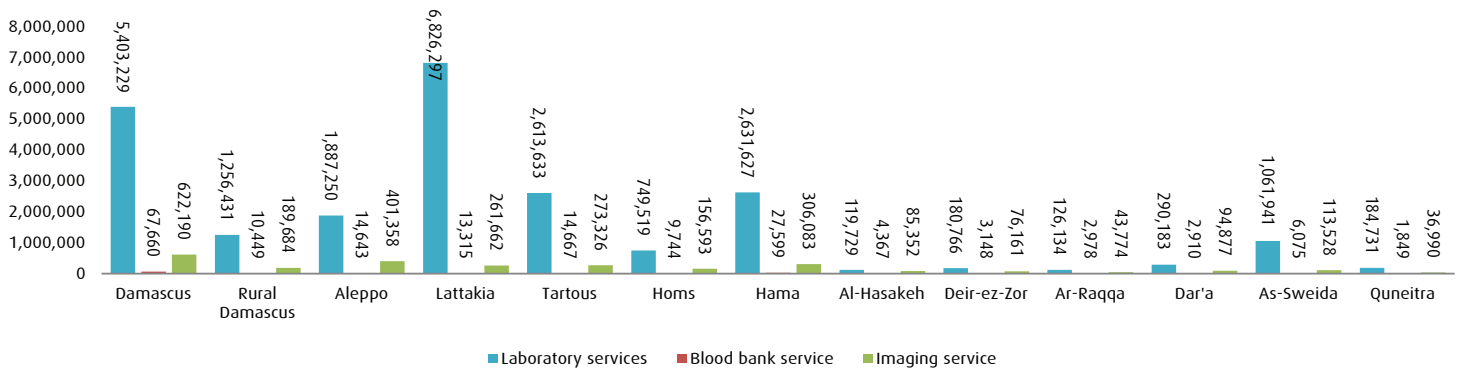
Figure 36: Trend analysis of outpatient and Inpatient in public hospitals, January 2020 to December 2021



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 2021 analyzed at governorate level [Figure 37].

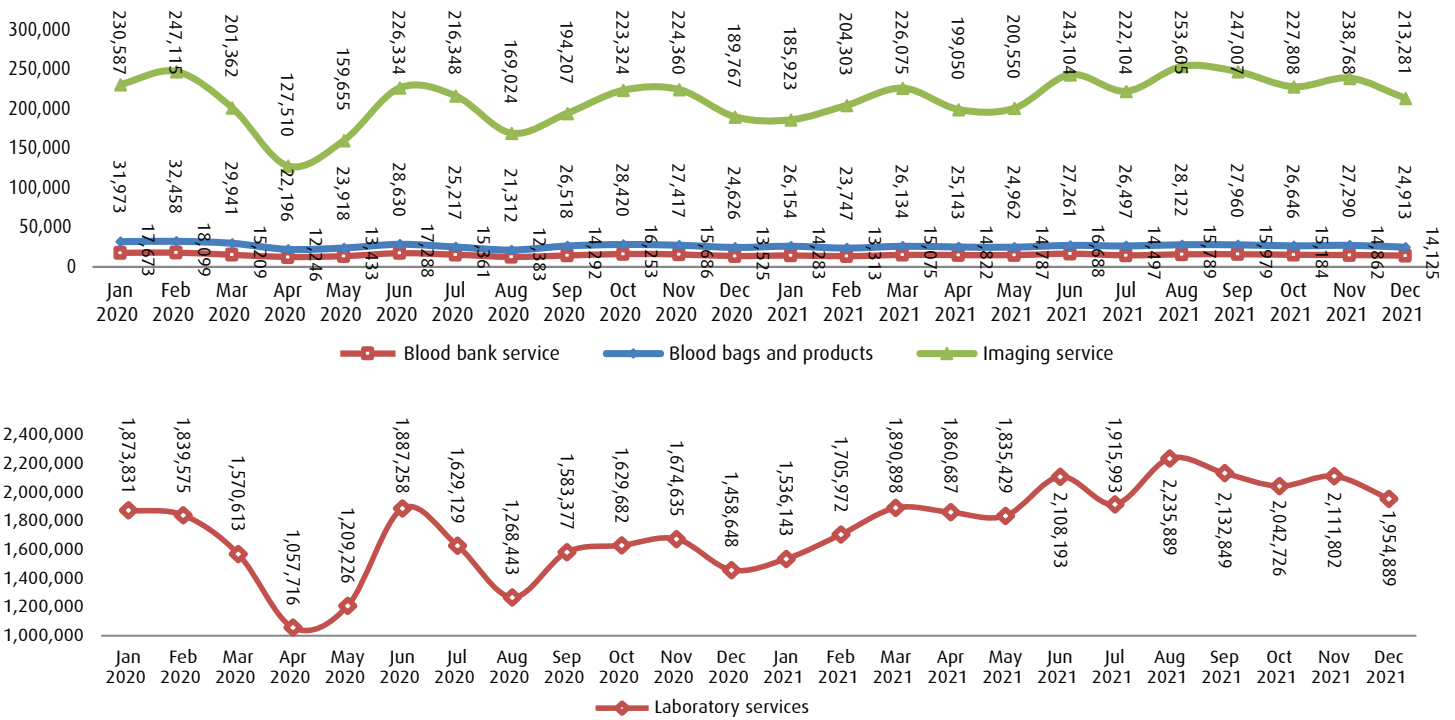
Figure 37: The number of patients received services in laboratories, blood bank, and imaging services in public hospitals, January to December 2021



Trend analysis of number of patients received services in hospitals' blood banks and imaging departments, from January 2020 to December 2021, is presented in [Figure 38]. The total reported patients received services in blood banks are 208,884 in 2019, while 181,448 in 2020 and 179,404 in 2021 [of note: the total number of blood bags and products are 385,847 in 2019, while 322,626 in 2020 and 314,829 in 2021], while patients received imaging services are 2,950,359 in 2019, while 2,409,593 in 2020 and 2,661,578 in 2021 [of note: the total performed service (X-Ray, MRI, and CT Scan pictures) 3,726,687 in 2019, while 3,053,673 in 2020, and 3,395,580 in 2021].

[Figure 38] also presents the trend analysis of received services in hospitals' laboratory.

Figure 38: Trend analysis of number of patients received services in blood banks and imaging services in public hospitals, January 2020 to December 2021



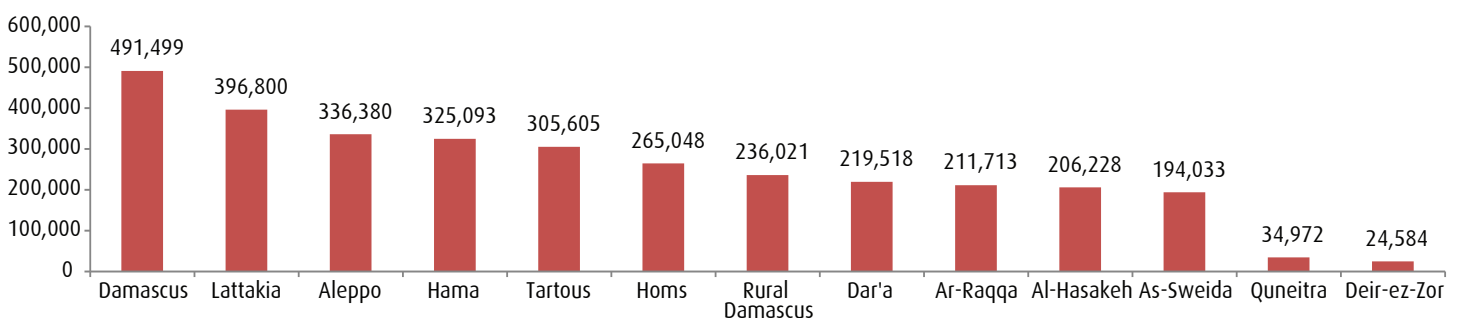
6.2 Surgical and trauma care

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

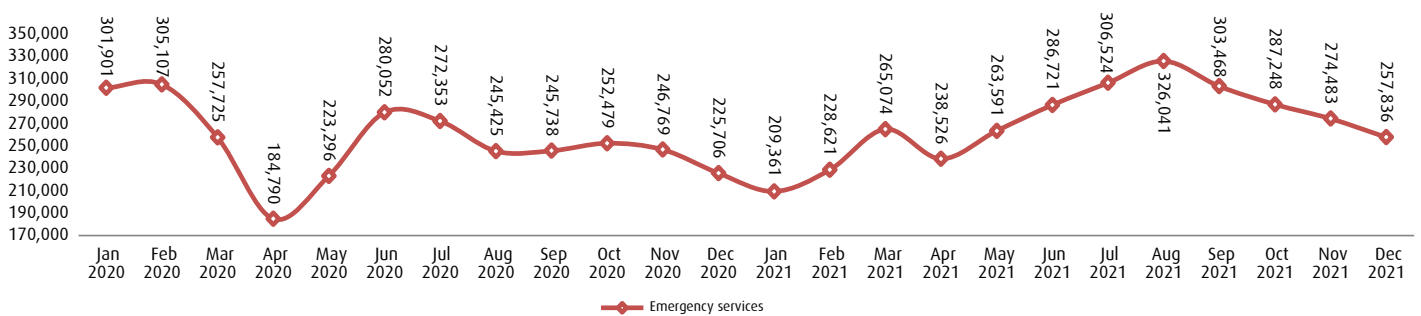
[Figure 39] presents the total number of cases in emergency departments, reported from January to December 2021 from functional public hospitals at governorate level.

Figure 39: The number of reported cases in emergency department in public hospitals, January to December 2021



Trend analysis of total number of cases in emergency departments in functional public hospitals (MoH & MoHE), from January 2020 to December 2021, is presented in [Figure 40]. The total number of cases in emergency departments are 3,758,550 in 2019, while 3,041,341 in 2020 and 3,247,494 in 2021.

Figure 40: Trend analysis of number of reported cases in emergency department in public hospitals, January 2020 to December 2021



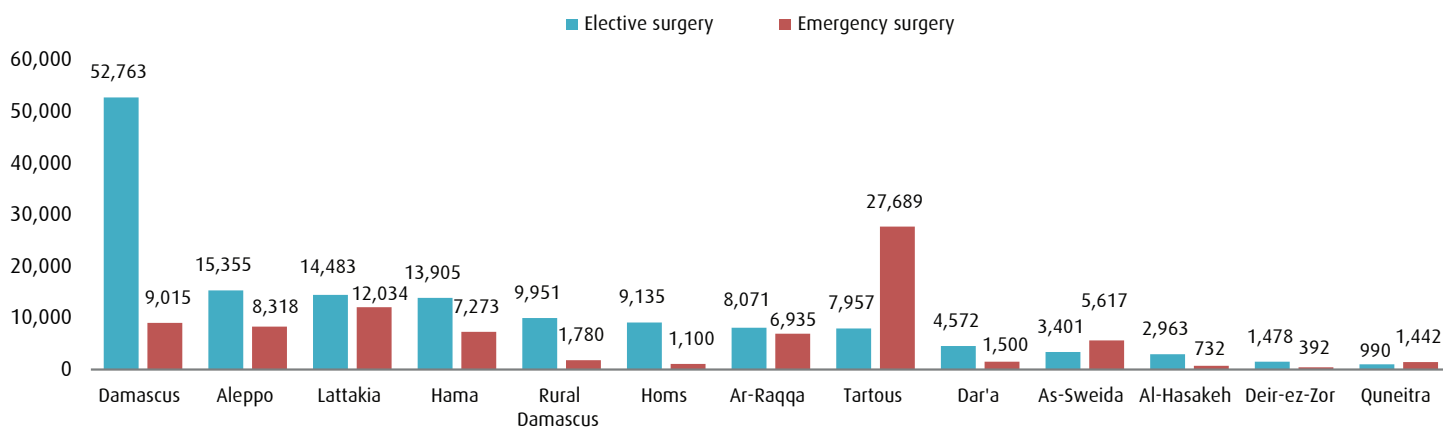
iv. Emergency and elective surgeries

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 41].

During December 2021, the highest workload of elective surgeries is reported from Al-Assad university hospital in Damascus (787 surgeries), followed by Damascus Hospital-Al-Mojtahid (739 surgeries), Hama National hospital (507 surgeries), Children university hospital in Damascus (483 surgeries), Aleppo university hospital (465 surgeries), and Al- Mouwasat university hospital in Damascus (440 surgeries).

While the highest workload of emergency surgeries is reported from Al-Bassel hospital in Tartous (2,103 surgeries), followed by Zaid Ash-Shariti hospital in As-Sweida (505 surgeries), National hospital in Lattakia (471 surgeries), Obstetrics and Gynecology MoHE hospital in Aleppo (380 surgeries), National hospital in Ar-Raqqa (350 surgeries), and Al-Mouwasat hospital in Damascus (343 surgeries).

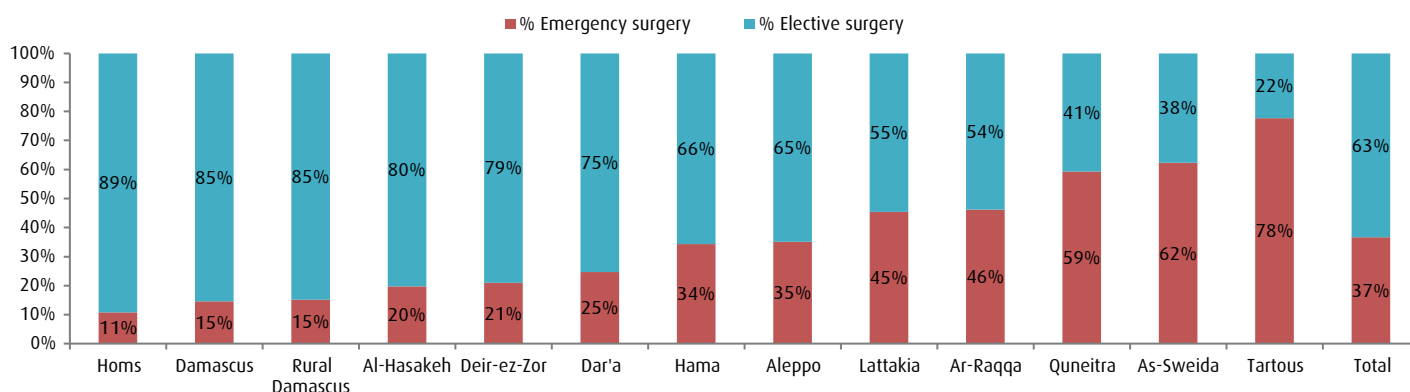
Figure 41: The number of emergency surgeries vs. elective surgeries in public hospitals, January to December 2021



By analyzing the percentage of total emergency surgeries to elective surgeries during December 2021, the highest percentage across different governorates is reported in Quneitra, As-Sweida, Tartous, governorates.

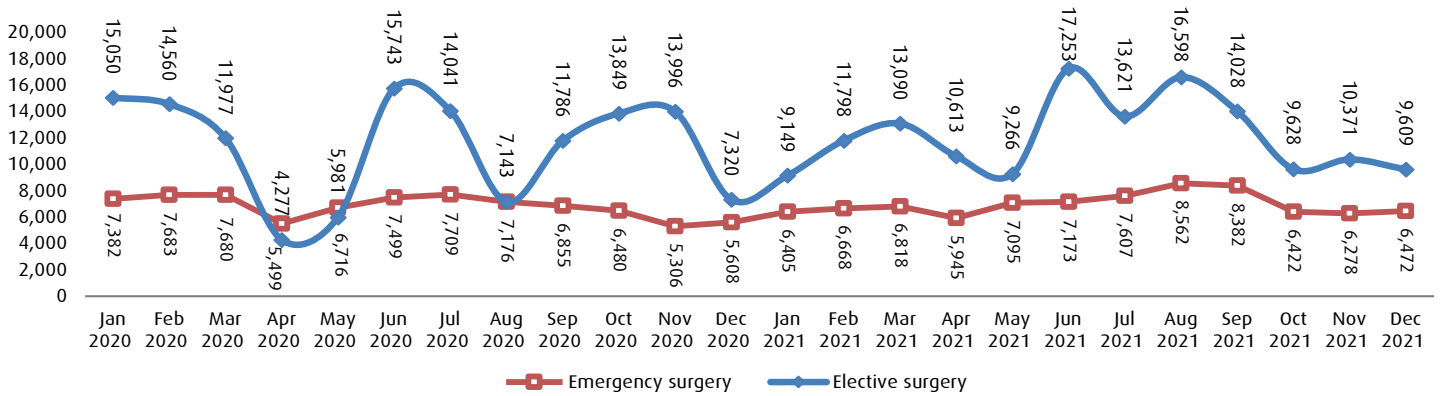
Across all reported functional public hospitals, 37% of surgeries are emergency surgeries while 63% are elective surgeries [Figure 42].

Figure 42: Percentage of total emergency surgeries to elective surgeries in public hospitals per governorate, January to December 2021



Trend analysis of total number of elective and emergency surgeries reported in functional public hospitals (MoH & MoHE), from January 2020 to December 2021, is presented in Figure 43. The total reported emergency surgeries are 89,860 in 2019, while 81,593 in 2020 and 83,827 in 2021. The elective surgeries are 198,740 in 2019, while 135,723 in 2020 and 145,024 in 2021.

Figure 43: Trend analysis of number of patients received emergency surgeries and elective surgeries in public hospitals, January 2020 to December 2021

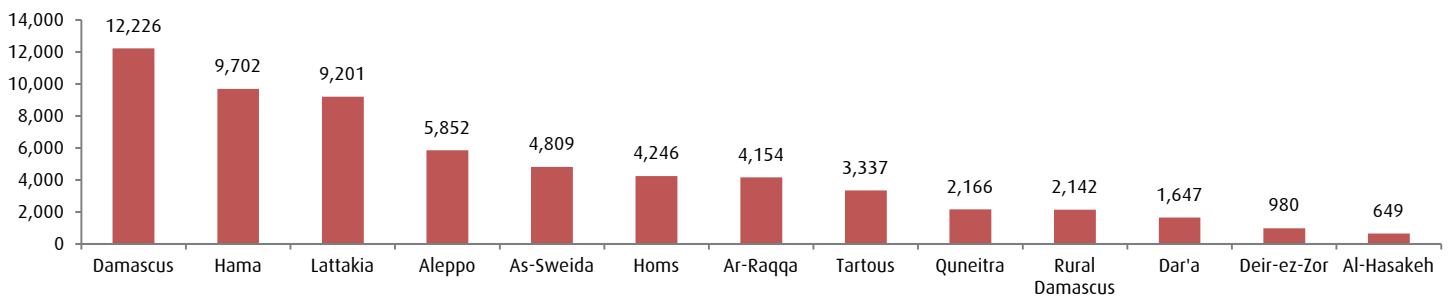


With note that increasing of the number of elective surgeries during June 2021 was due to desire of people to perform elective surgeries after the month of fasting in Ramadan (May 2021).

v. ICU services

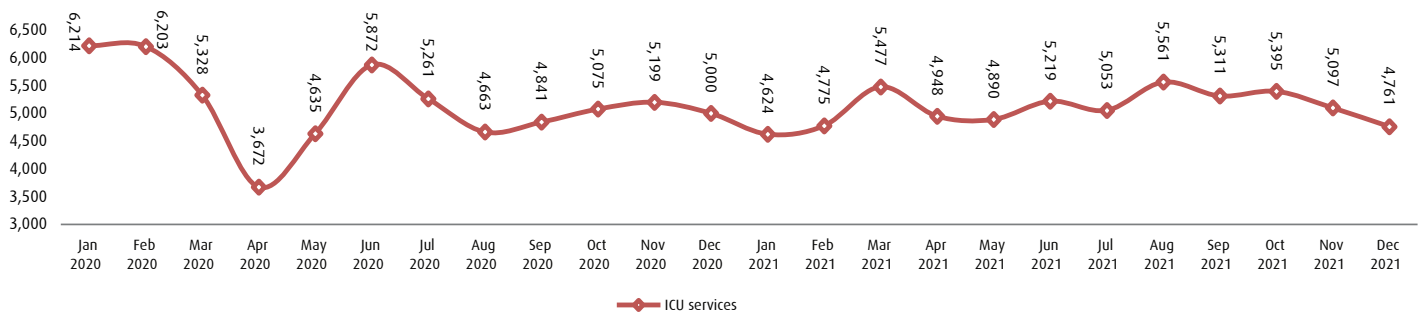
[Figure 44] presents the total number of patients received ICU services reported during January to December 2021 in functional public hospitals at governorate level.

Figure 44: The number of patients received ICU services in public hospitals, January to December 2021



Trend analysis of total number of patients received ICU services reported in functional public hospitals (MoH & MoHE), from January 2020 to December 2021, is presented in [Figure 45]. The total reported number of patients received ICU services are 72,644 in 2019, while 61,963 in 2020, and 61,111 in 2021.

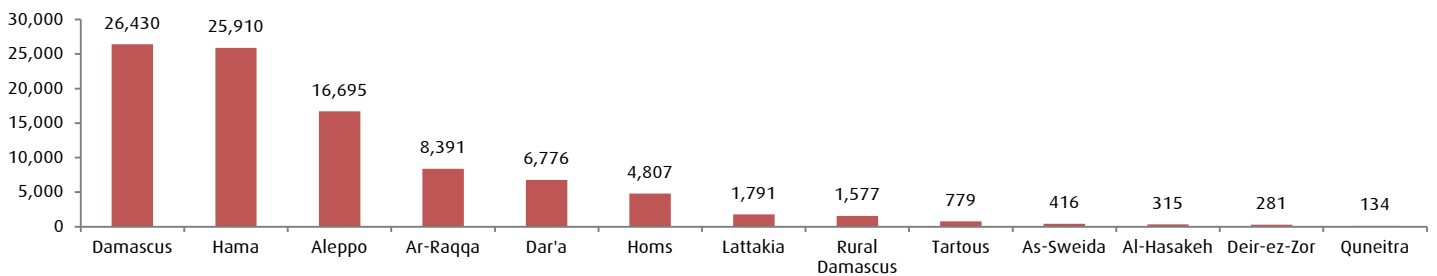
Figure 45: Trend analysis of number of patients received ICU services in public hospitals, January 2020 to December 2021



vi. Trauma services

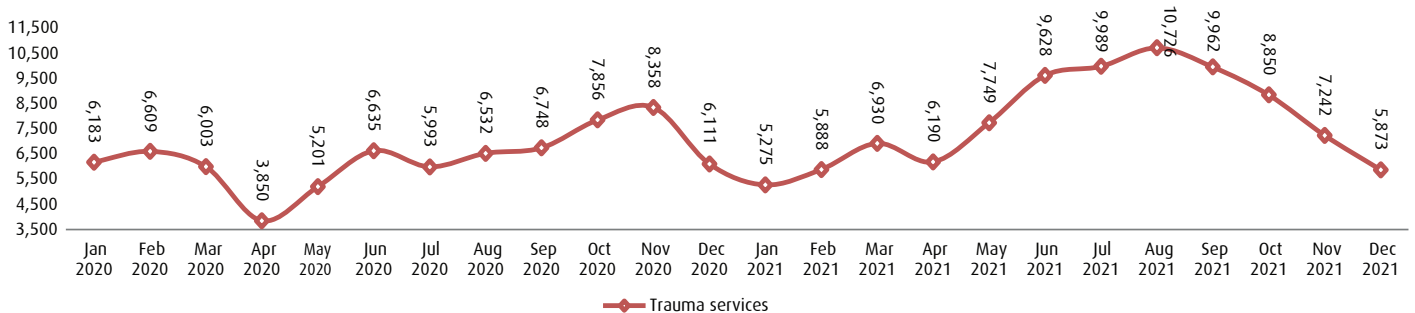
[Figure 46] presents the total number of patients received Orthopaedic/trauma in orthopaedic care reported during January to December 2021 from functional public hospitals at governorate level.

Figure 46: The number of patients received trauma services in public hospitals, January to December 2021



Trend analysis of total number of patients received trauma services reported in functional public hospitals (MoH & MoHE), from January 2020 to December 2020 is presented in [Figure 47]. The total reported number of patients received trauma services are 87,478 in 2019, while 76,079 in 2020 and 94,302 in 2021.

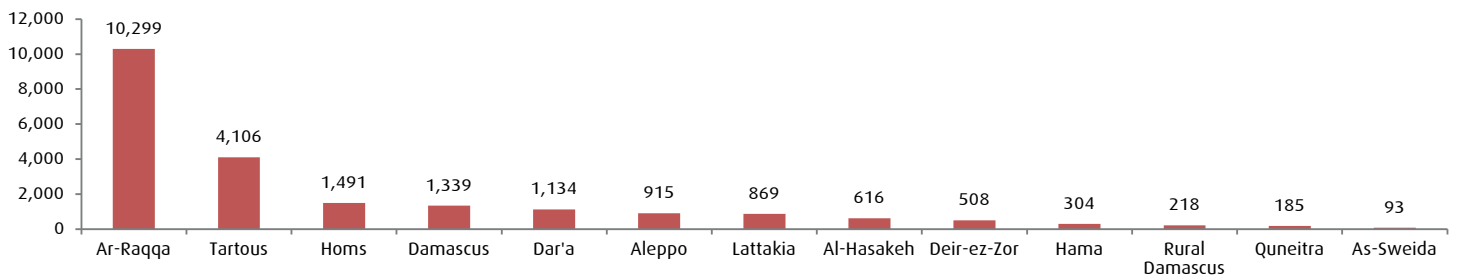
Figure 47: Trend analysis of number of patients received trauma services in public hospitals, January 2020 to December 2021



vii. Burn patient management

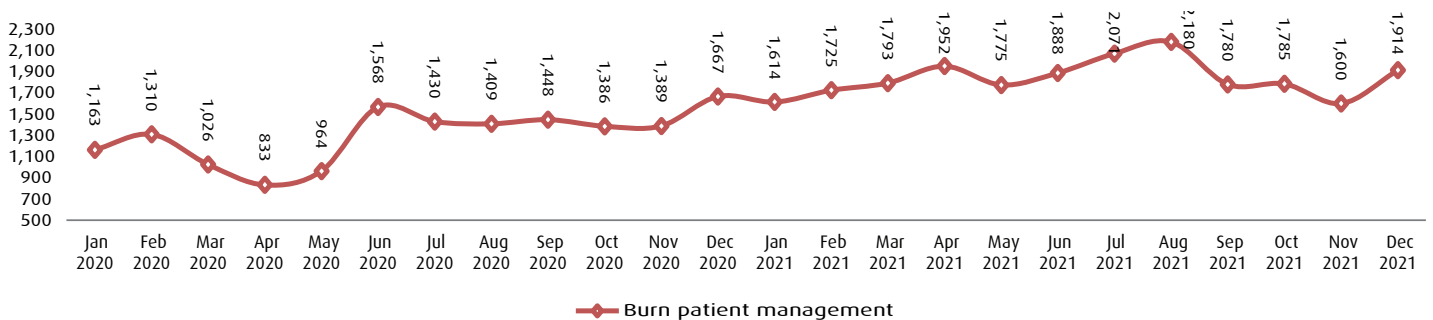
[Figure 48] presents the total number of patients received burn patient management reported during January to December 2021 in functional public hospitals at governorate level.

Figure 48: The number of patients received burn patient management in public hospitals, January to December 2021



Trend analysis of total number of patients received burn patient management reported in functional public hospitals (MoH & MoHE), from January 2020 to December 2021, is presented in [Figure 49]. The total reported number of patients received burn patient management are 14,271 in 2019, while 15,593 in 2020, and 22,077 in 2021.

Figure 49: Trend analysis of number of patients received burn patient management in public hospitals, January 2020 to December 2021



6.3 Maternal health services

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

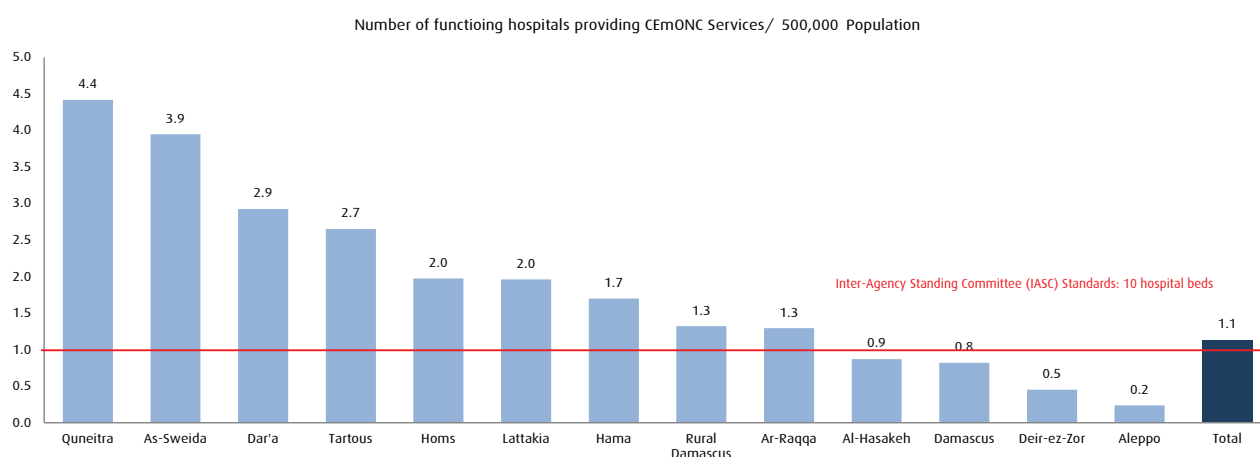
- Utilization of service (caesarean sections (CS) vs. normal deliveries); from January to December 2021 summary figures by governorate
- Percentage of CSs to normal deliveries, from January to December 2021
- Trend analysis of the monthly normal deliveries vs. caesarean sections, from January 2020 to December 2021

i. Number of functioning hospitals providing CEmONC services/ 500,000 Population

The follow figure shows the number of functioning hospitals providing (CEmOC) Comprehensive Emergency Obstetric Care (i.e., BEOC + caesarean section + safe blood transfusion) services/ 500,000 Population, given that the benchmark is at least 1 hospital providing CEmONC services (Inter-Agency Standing Committee (IASC) Standards).

Four governorates (Deir-ez-Zor, Damascus, Al-Hasakeh, and Aleppo) are below benchmark in [Figure 50].

Figure 50: Number of functioning hospitals providing CEmONC services/ 500,000 Population, January to December 2021

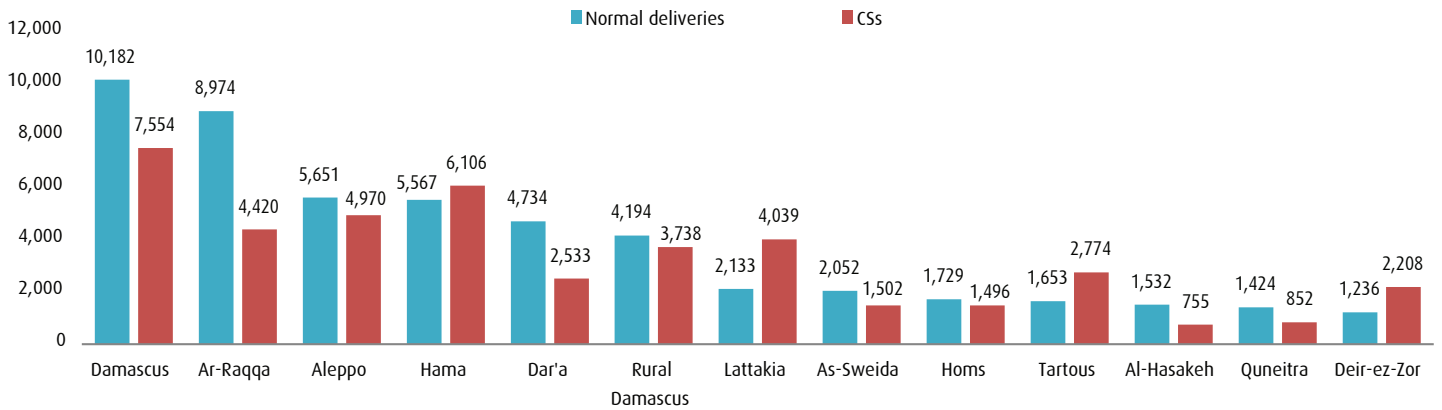


ii. Utilization of service (caesarean sections vs. normal deliveries)

The numbers of caesarean sections performed at public hospitals (in December 2021) versus the normal deliveries have been analyzed at governorates' level [Figure 51].

The highest numbers are reported from Obstetrics and Gynecology MoHE hospital in Damascus (normal deliveries are 674 while CSs are 515), Gynecology MoHE Hospital in Aleppo (normal deliveries are 337 while CSs are 371), followed by Maternity hospital in Ar-Raqqa (normal deliveries are 475 while CSs are 180), Ath-Thawrah National hospital in Ar-Raqqa (normal deliveries are 383 while CSs are 136), Al-Assad hospital in Hama (normal deliveries are 265 while CSs are 147), Children and Obstetrics hospital in Deir-ez-Zor (normal deliveries are 138 while CSs are 170), and Zaid Ash-Shariti hospital in As-Sweida (normal deliveries are 181 while CSs are 126)..

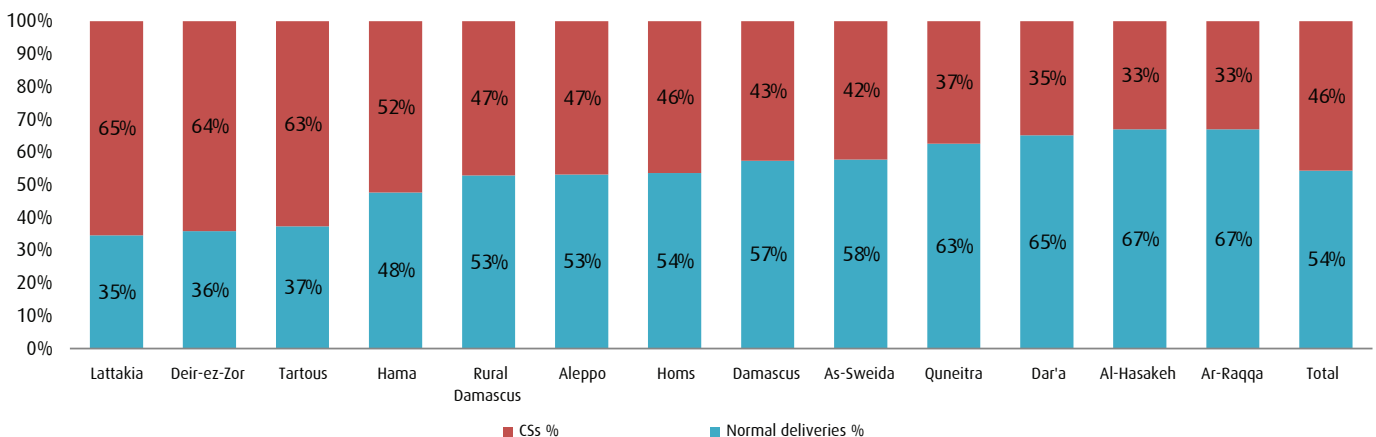
Figure 51: The No. of normal deliveries and caesarean sections (CSs) performed at public hospitals, January to December 2021



iii. Percentage of CS to normal deliveries

Across all reported functional hospitals in 2021, 46% (42,947) of deliveries are CSs while 54% (51,061) are normal deliveries. Details on percent of CSs to normal deliveries per governorate from January December 2021, is provided in [Figure 52].

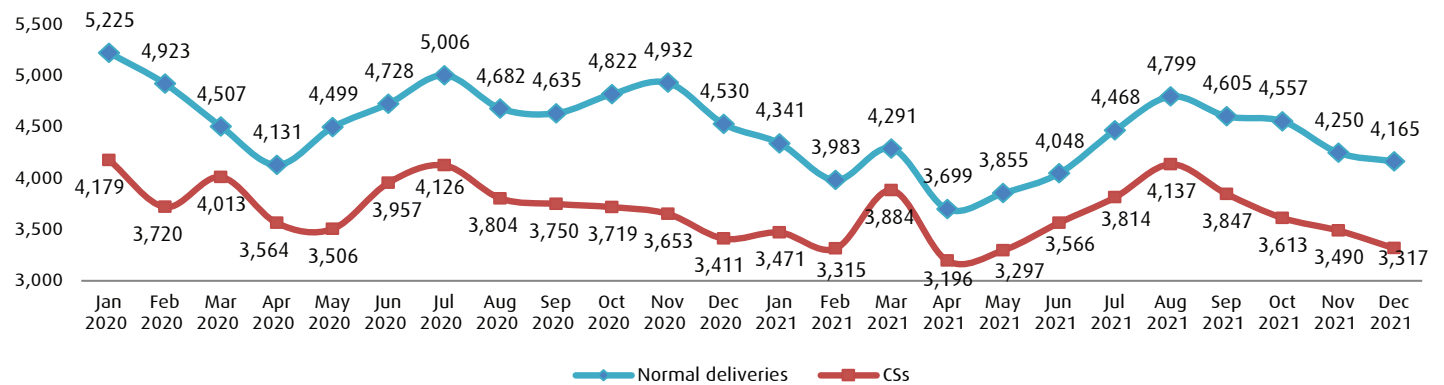
Figure 52: Percentage of caesarean sections to normal deliveries in public hospitals, January to December 2021



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

Trend analysis of the monthly numbers of normal deliveries vs. caesarean sections reported from the MoH & MoHE hospitals, from January 2020 to December 2021, is shown in [Figure 53]. The total reported normal deliveries are 71,704 in 2019, while 56,620 in 2020, and 51,061 in 2021. The total reported caesarean sections are 54,592 in 2019, while 45,402 in 2020, and 42,947 in 2021.

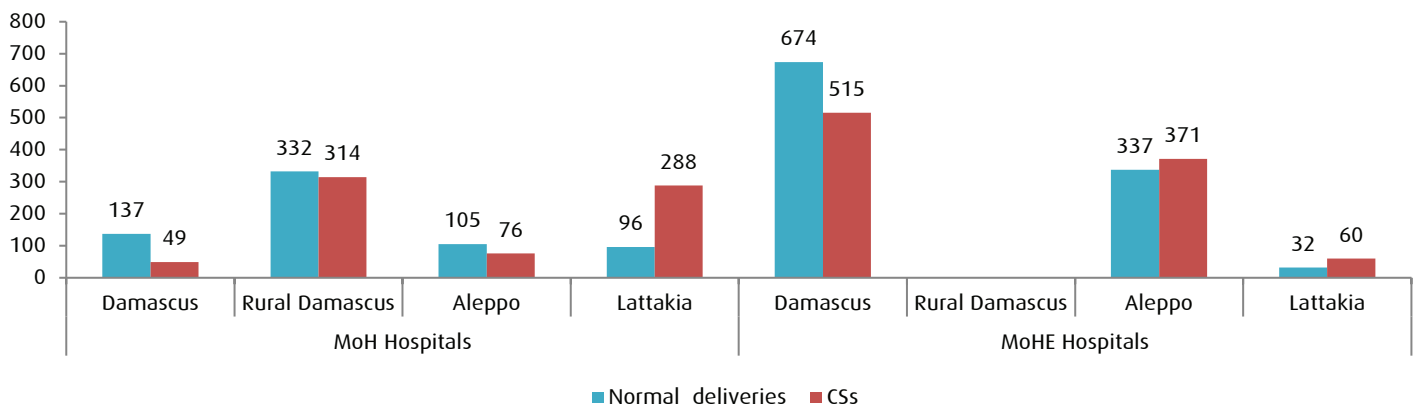
Figure 53: Trend analysis of the monthly numbers of normal deliveries vs. caesarean sections in public hospitals, January 2020 to December 2021



v. 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 54].

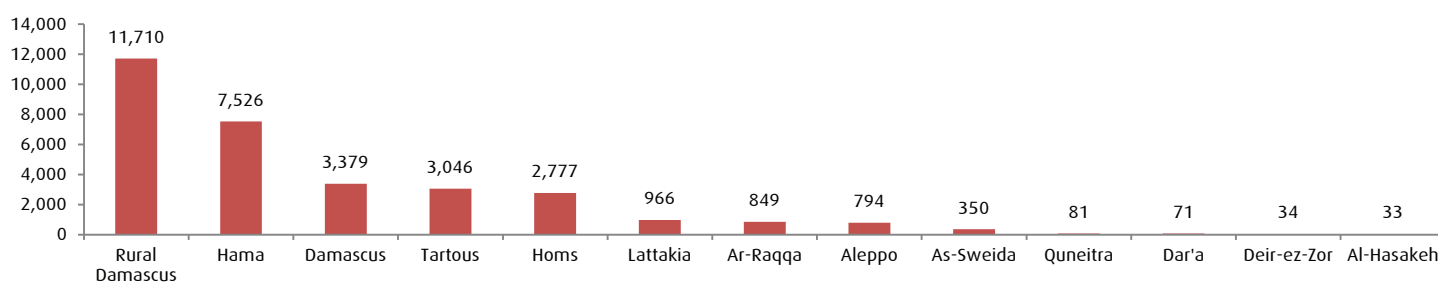
Figure 54: Comparison of MoH & MoHE hospitals workload of normal deliveries vs, CSs, December 2021



6.4 Child health

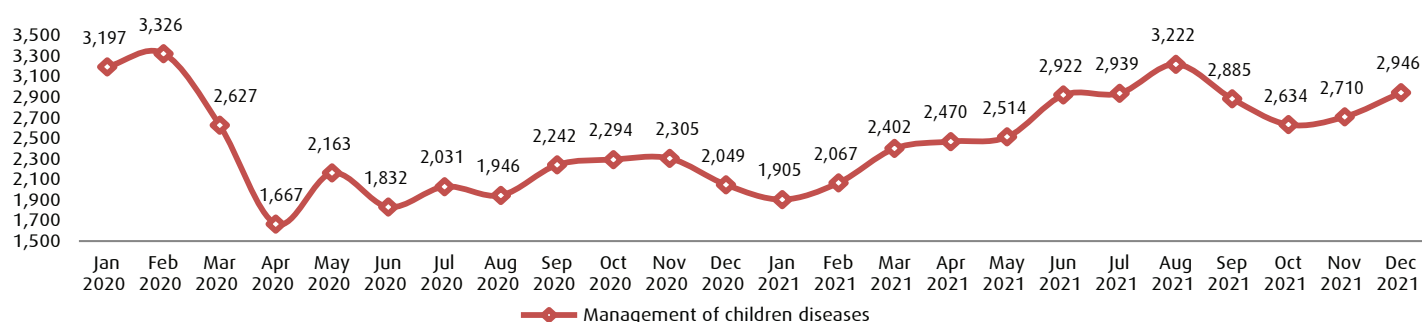
Management of severe children's diseases (such as acute respiratory diseases, Meningitis, blood diseases cancer, etc...) are assessed at hospitals level. [Figure 55] shows the distribution of total reported cases of management of children classified with severe or very severe diseases (parenteral fluids and drugs, oxygen) by governorate.

Figure 55: Number of children with severe diseases in public hospitals, January to December 2021



Trend analysis of reported cases of severe children's diseases from January 2020 to December 2021, is presented in [Figure 56]. The total reported cases of severe children's diseases are 39,473 in 2019, while 27,679 in 2020, and 31,616 in 2021.

Figure 56: Trend analysis of reported cases of severe children diseases in public hospitals, January 2020 to December 2021

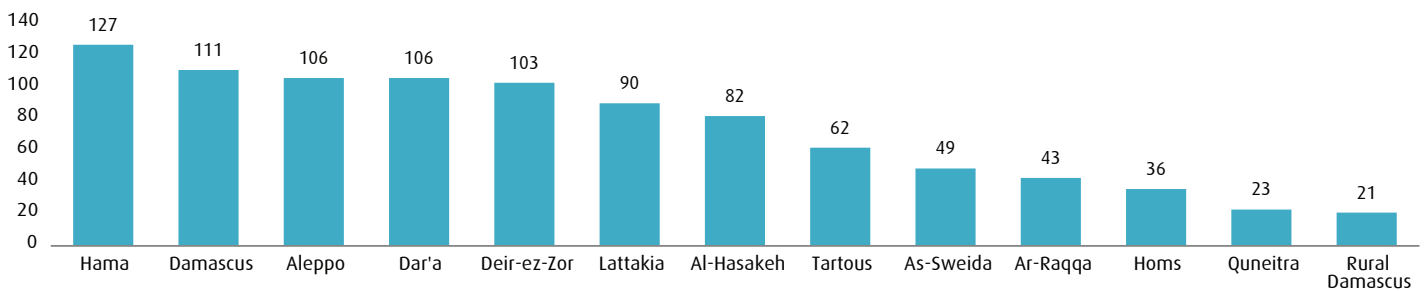


6.5 Nutrition

24/7 services are systematically conducted at public hospitals level in terms of monitoring of cases in stabilization center 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.

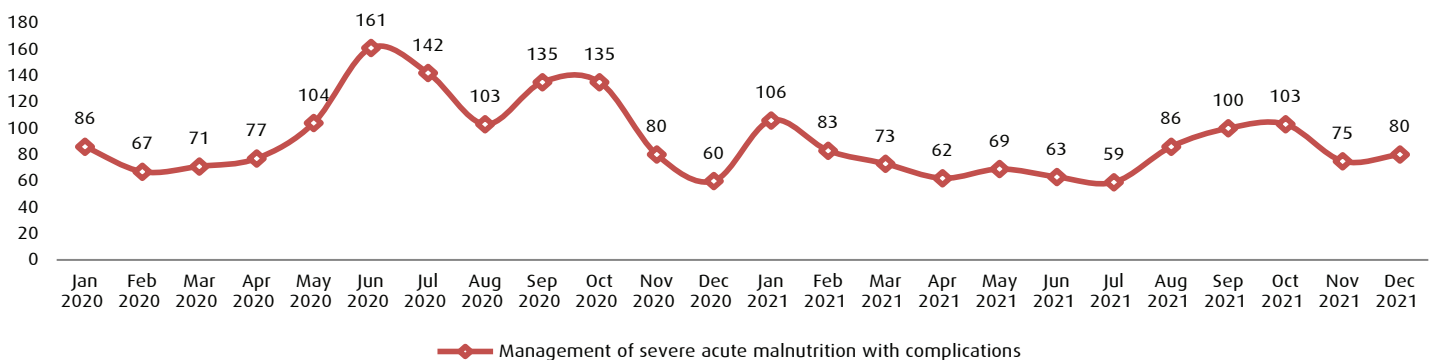
[Figure 57] demonstrates the number of cases reported in January to December 2021, at governorate level.

Figure 57: The number of children with severe acute malnutrition with complications in public hospitals, January to December 2021



Trend analysis of reported cases of severe acute malnutrition from January 2020 to December 2021, is presented in [Figure 58]. The total reported children with severe acute malnutrition are 1,120 in 2019, while 1,221 in 2021 and 959 in 2021

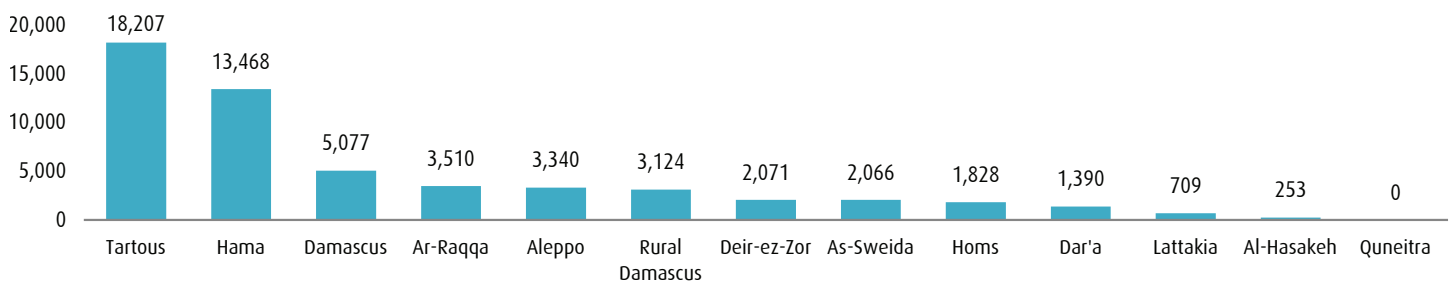
Figure 58: Trend analysis of number of children with severe acute malnutrition with complications in public hospitals, January 2020 to December 2021



6.6 Communicable diseases services

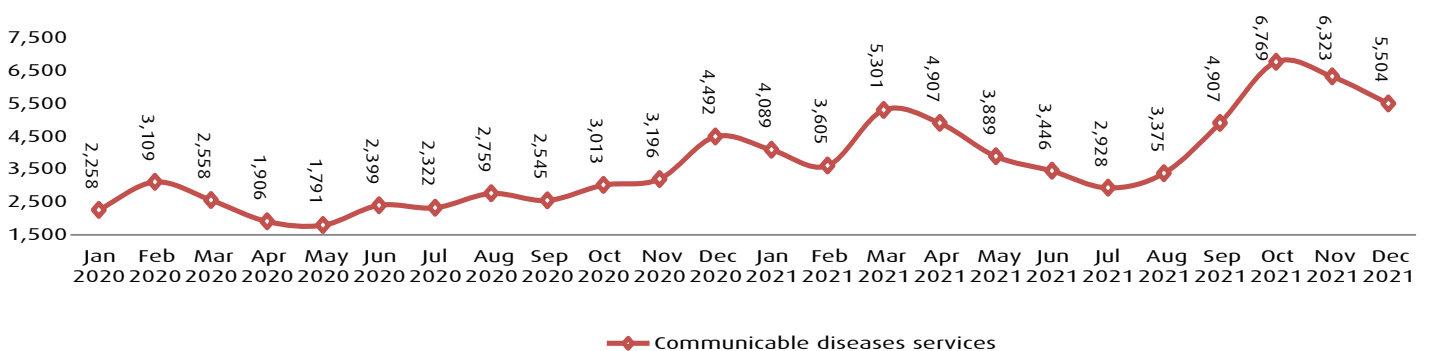
Management of severe and/or complicated communicable diseases (such as meningitis, measles, SARI, and others) are assessed at hospitals level. [Figure 59] shows the distribution of total reported cases of communicable diseases services by governorate.

Figure 59: The number of patients received communicable diseases in public hospitals, January to December 2021



Trend analysis of reported patients received communicable diseases from January 2020 to December 2021, is presented in [Figure 60]. The total reported patients are 28,849 in 2019, while 32,348 in 2020, and 55,043 in 2021.

Figure 60: Trend analysis of number of patients received communicable diseases in public hospitals, January 2020 to December 2021



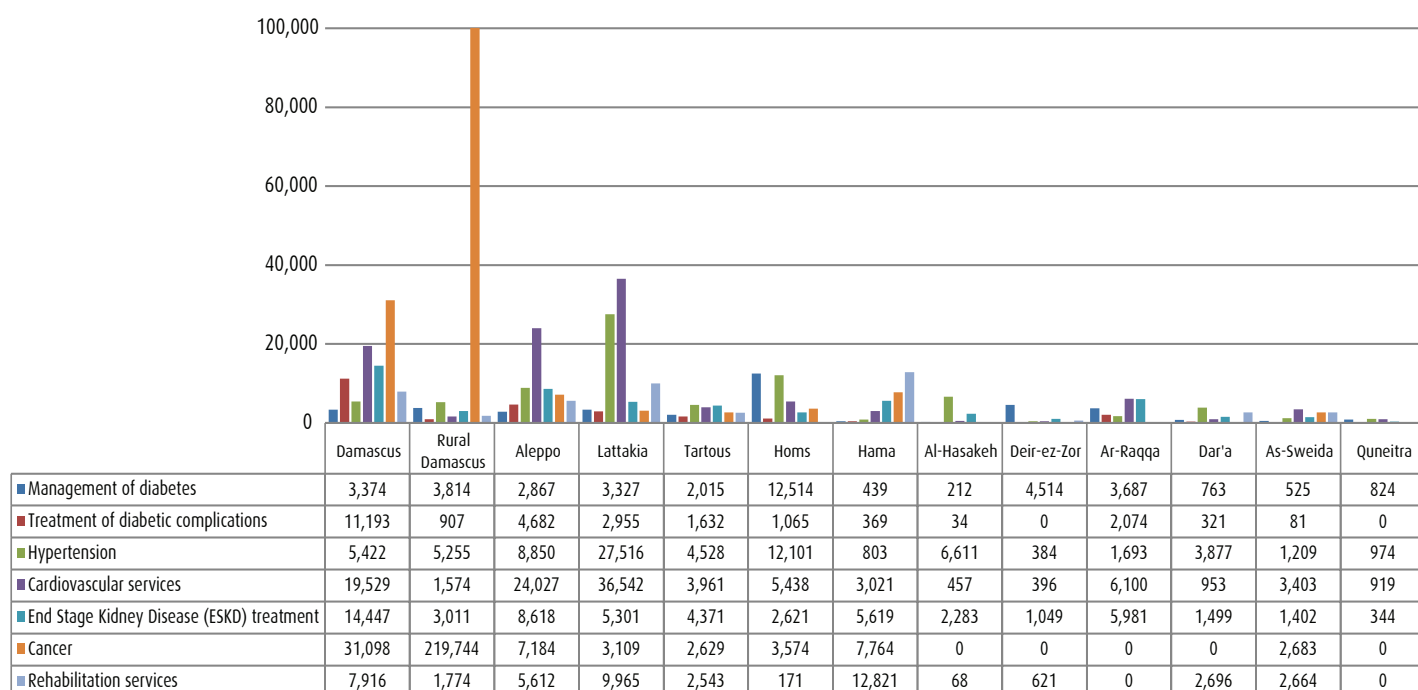
6.7 NCDs (non-communicable diseases)

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

Among all NCDs during 2021, Cancer patients' consultations are the highest reported figures, mainly in Damascus, and Rural Damascus. It worth mentioning that cancer is treated at secondary and tertiary levels only, while other NCDs (diabetes and hypertension, etc...) are usually managed at primary and secondary care levels, unless patients develop face complications.

Cardiovascular consultations are the second highest reported figures during 2021, mainly in Lattakia (there is one cardiovascular specialized hospital), Damascus (there are two cardiovascular specialized hospitals), and Aleppo (there are two cardiovascular specialized hospitals [Figure 61]).

Figure 61: The number of NCDs' consultations in public hospitals, January to December 2021

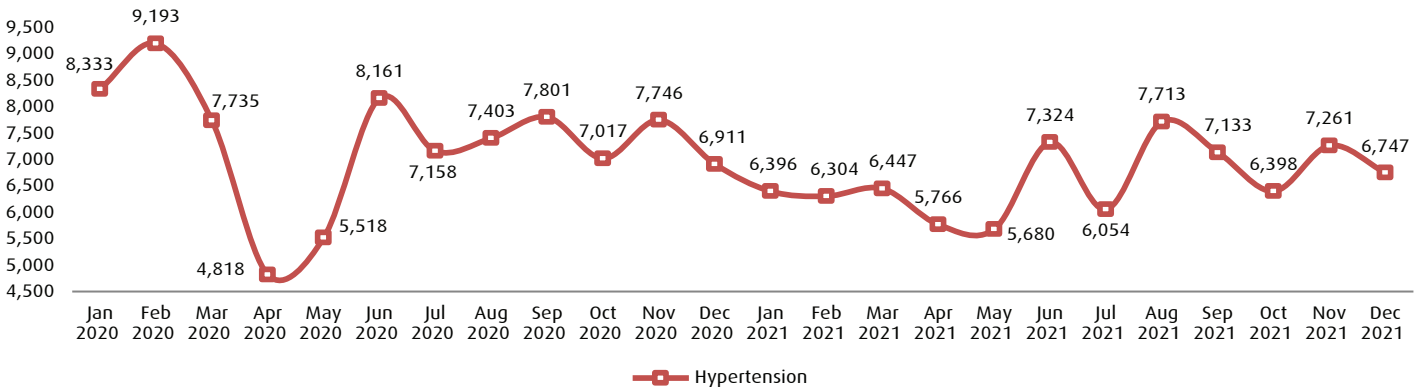
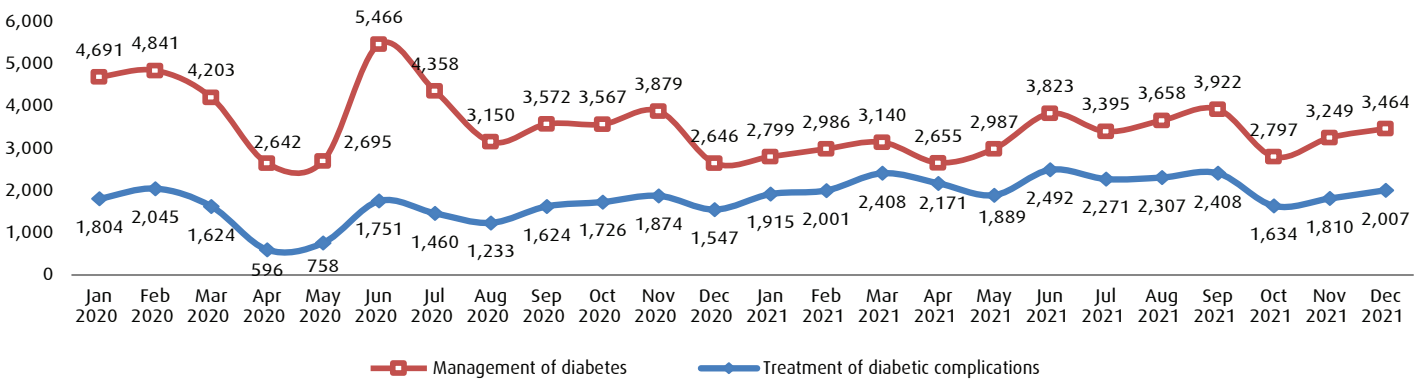


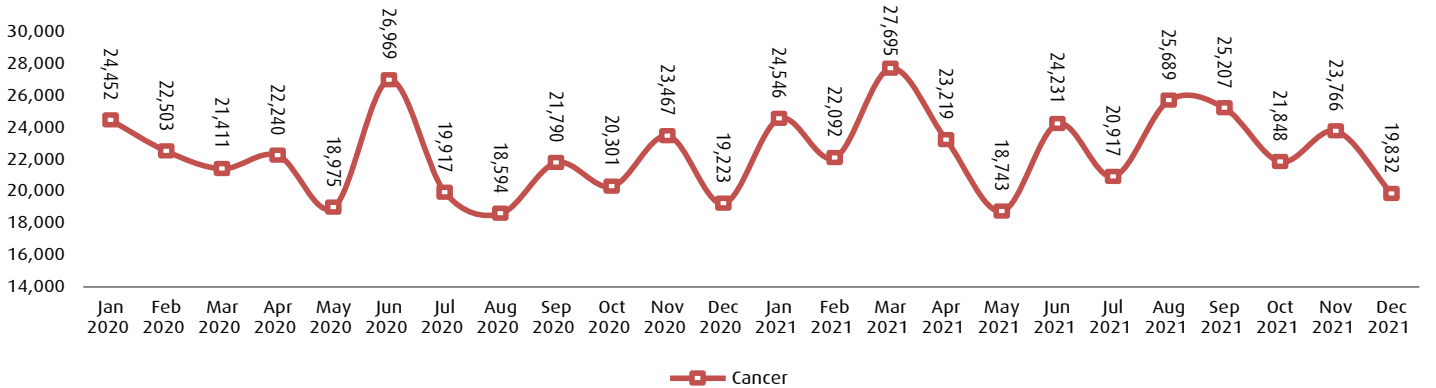
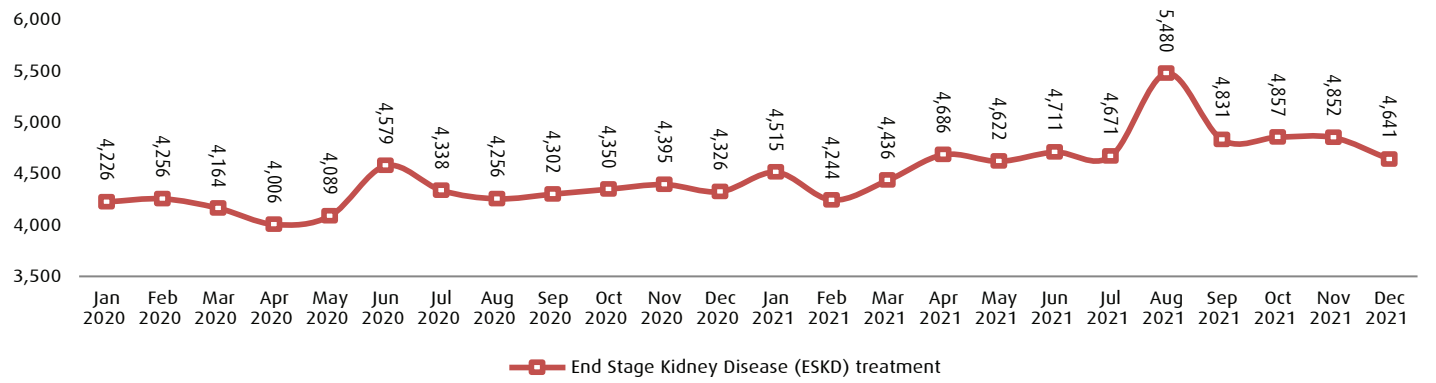
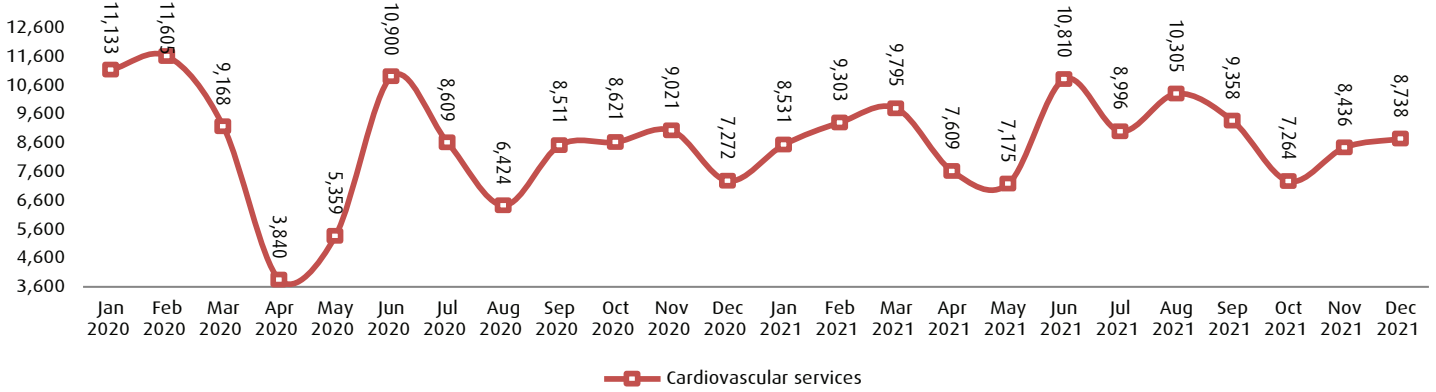
The monthly trend of reported NCDs' consultations at functional public hospitals from January 2020 to December 2021 is shown in [Figure 62].

The total reported NCDs' consultations are as following:

- Diabetes: 64,406 in 2019, while 45,710 in 2020, and 38,875 in 2021
- Diabetic complications: 22,901 in 2019, while 18,042 in 2020, and 25,313 in 2021
- Hypertension: 97,534 in 2019, while 87,794 in 2020, and 79,223 in 2021
- Cardiovascular: 132,270 in 2019, while 100,463 in 2020, and 106,320 in 2021
- ESKD: 50,895 in 2019, while 51,287 in 2020, and 56,546 in 2021 (of note: the total performed ESKD Sessions are 373,311 in 2019, while 384,691 in 2020, and 391,352 in 2021)
- Cancer: 231,523 in 2019, while 259,842 in 2020, and 277,785 in 2021

Figure 62: Trend analysis of total monthly number of NCDs' consultations reported in public hospitals, January 2020 to December 2021

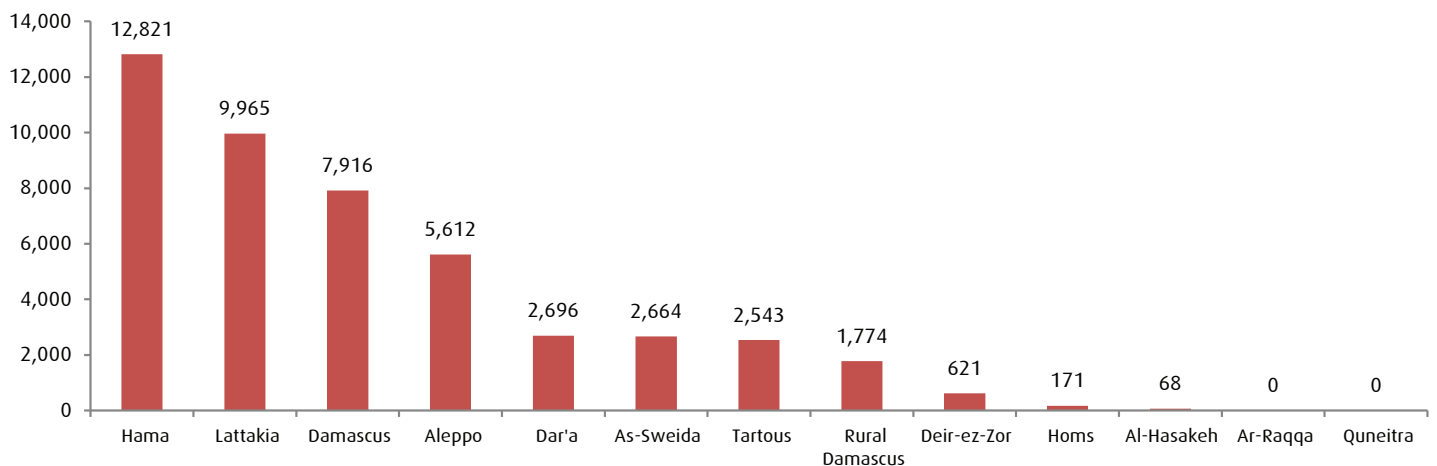




6.8 Rehabilitation services

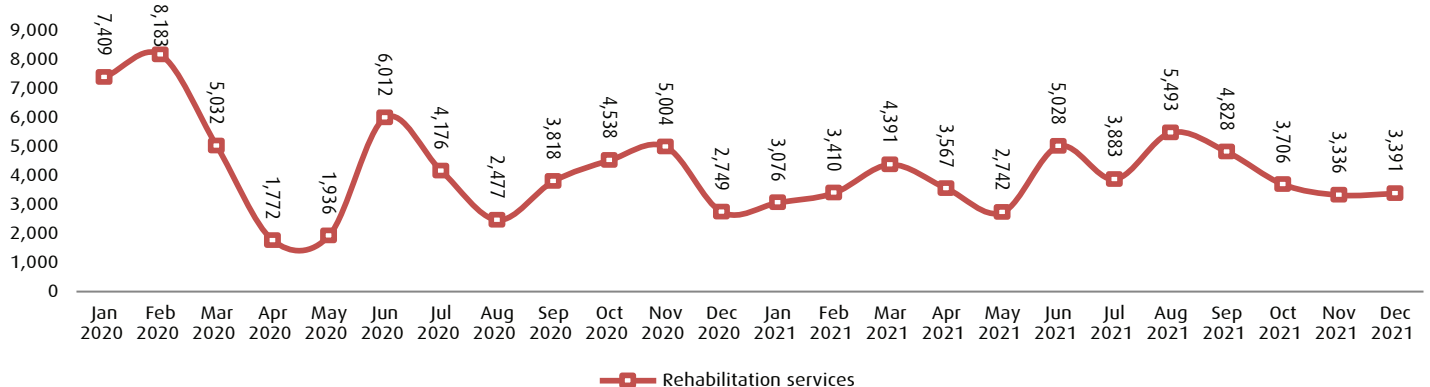
Rehabilitation services and assistive device provision, including post-operative rehabilitation for trauma-related injuries are assessed at hospitals level. [Figure 63] shows the distribution of total reported cases of rehabilitation services by governorate.

Figure 63: The number of rehabilitation services in public hospitals, January to December 2021



Trend analysis of reported patients received rehabilitation services from January 2020 to December 2021, is presented in [Figure 64]. The total reported patients received rehabilitation services are 94,046 in 2019, while 53,106 in 2020, and 46,851 in 2021.

Figure 64: Trend analysis of number of rehabilitation services in public hospitals, January 2020 to December 2021

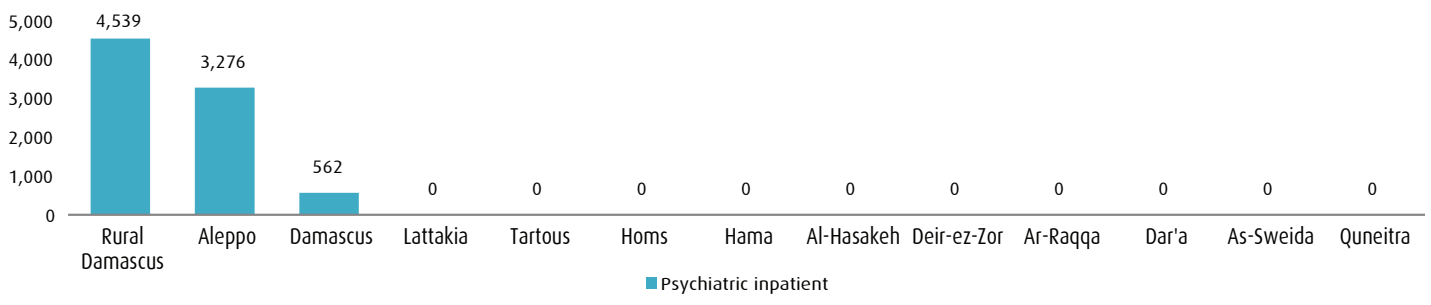


6.9 Mental health

Inpatient care for management of mental disorders by specialized health-care providers are assessed at hospitals level. [Figure 65] shows the distribution of total reported cases of Psychiatric inpatient by governorate.

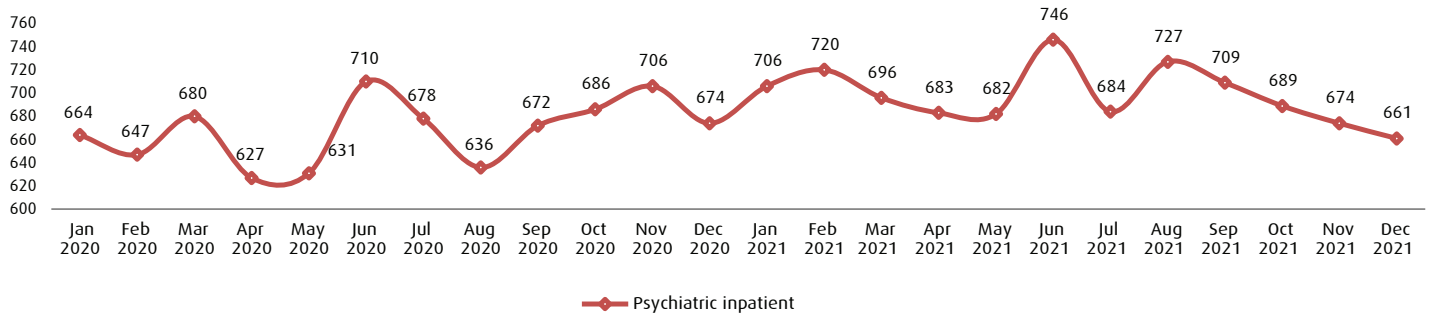
The key figures of Psychiatric inpatient during 2021 are reported from Rural Damascus (Ibn-Sina Psychiatric MoH hospital (4,428 cases), followed by Aleppo (Ibn-Khaldoun MoH hospital (3,276 cases).

Figure 65: The number of psychiatric inpatients in public hospitals, January to December 2021



Trend analysis of monthly reported number of psychiatric inpatients in public hospitals (MoH & MoHE) from January 2020 to December 2021 is shown in [Figure 66]. The total reported psychiatric inpatients cases are 8,940 in 2019, while 8,011 in 2020, and 8,377 in 2021.

Figure 66: Trend analysis of number of psychiatric inpatient cases in public hospitals, January 2020 to December 2021



7. 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 checklist¹.

After 12 year of crisis, Syria's hospitals 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).

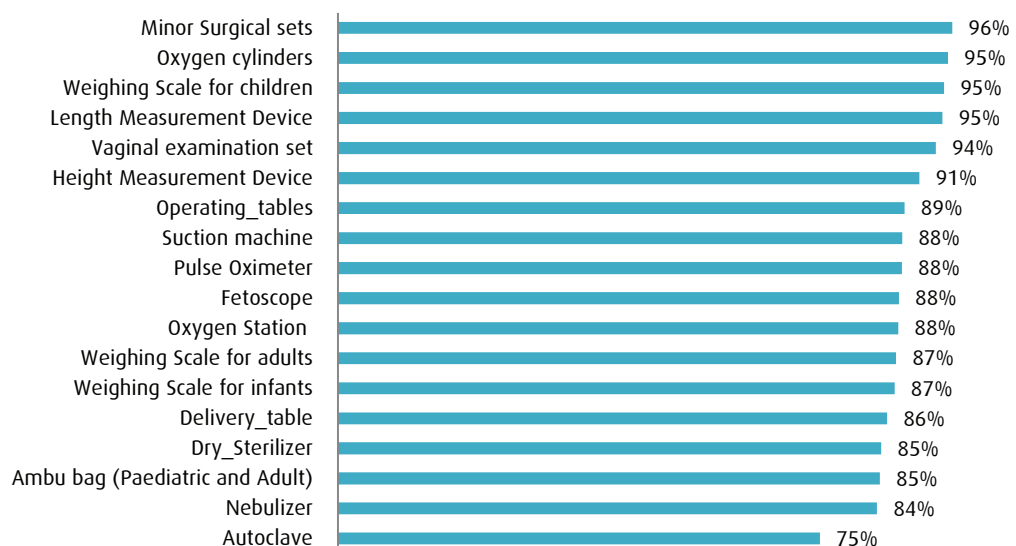
Maintenance of malfunctioned devices remains a concern, due to non-availability of spare parts, accredited agent to provide maintenance support, or difficulty of accessibility in many cases.

Analysis of availability of essential and specialized equipment was measured across all functional public hospitals (MoH & MoHE) (86/114 hospitals), 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.

- Only 68.6% of public hospitals meet the 70% equipment availability threshold.
- In terms of the availability of equipment, Quneitra was the best, then Lattakia, and then As-Sweida. The worst was Idlib, then Deir-ez-Zor, and then Al-Hasakeh.

Gaps on essential and specialized equipment and machines were observed within the functional public hospitals. Further details are provided on [Figure 67,68,69,70] .

Figure 67: Percentage of functional essential equipment/ total available equipment in functional public hospitals, January to December 2021



¹ A more detailed list of essential equipment is available upon request.

Figure 68: Percentage of functional specialized equipment/ total available equipment in the functional public hospitals, January to December 2021

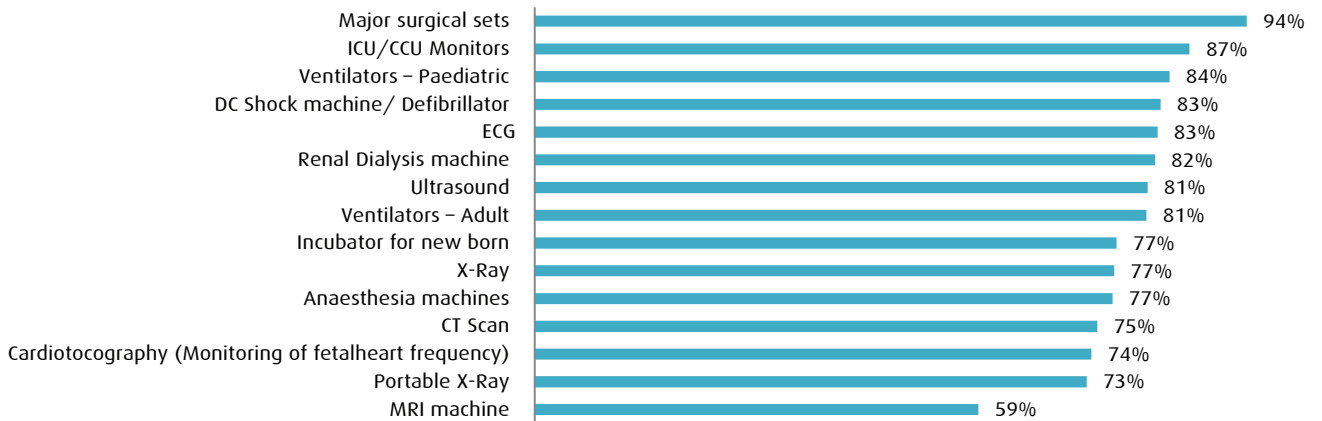


Figure 69: Percentage of functional essential equipment/ total available equipment in functional public hospitals, per governorate

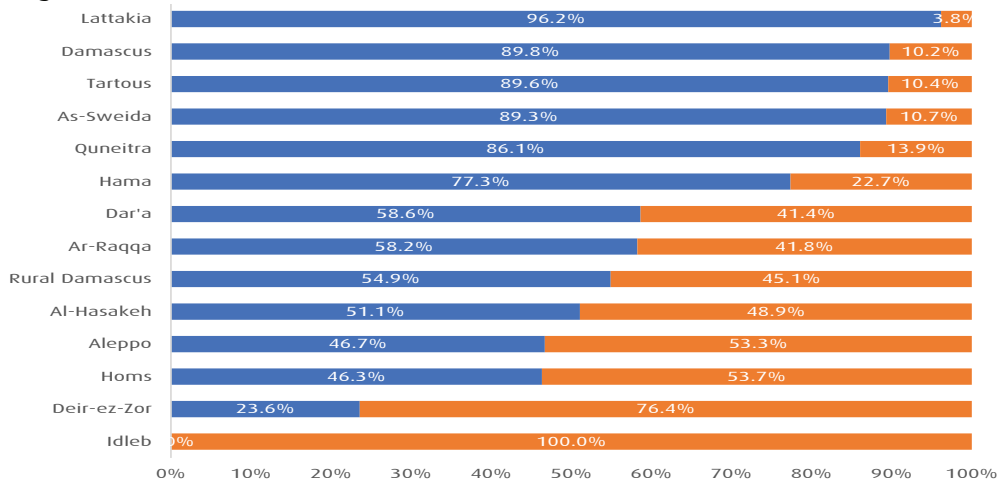
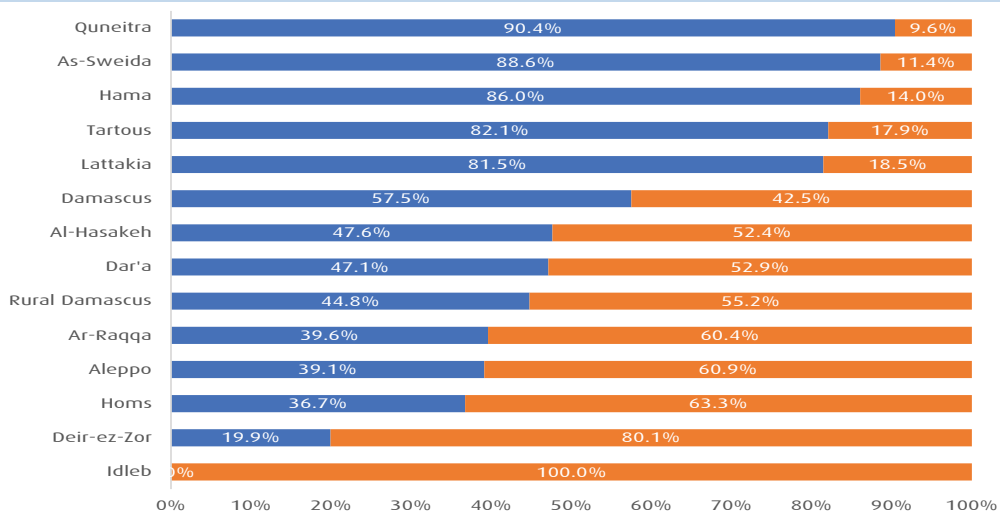


Figure 70: Percentage of functional specialized equipment/ total available equipment in the functional public hospitals, per governorate



8. 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 71,72].

- Only 24.4% of public hospitals meet the 70% medicines availability threshold.
- In terms of the availability of medicines, Quneitra was the best, then As-Sweida, and then Tartous. The worst was Idlib, then Al-Hasakeh, and then Deir-ez-Zor.

Figure 71: Availability of medicines and medical supplies for one month in the functional public hospitals, January to December 2021

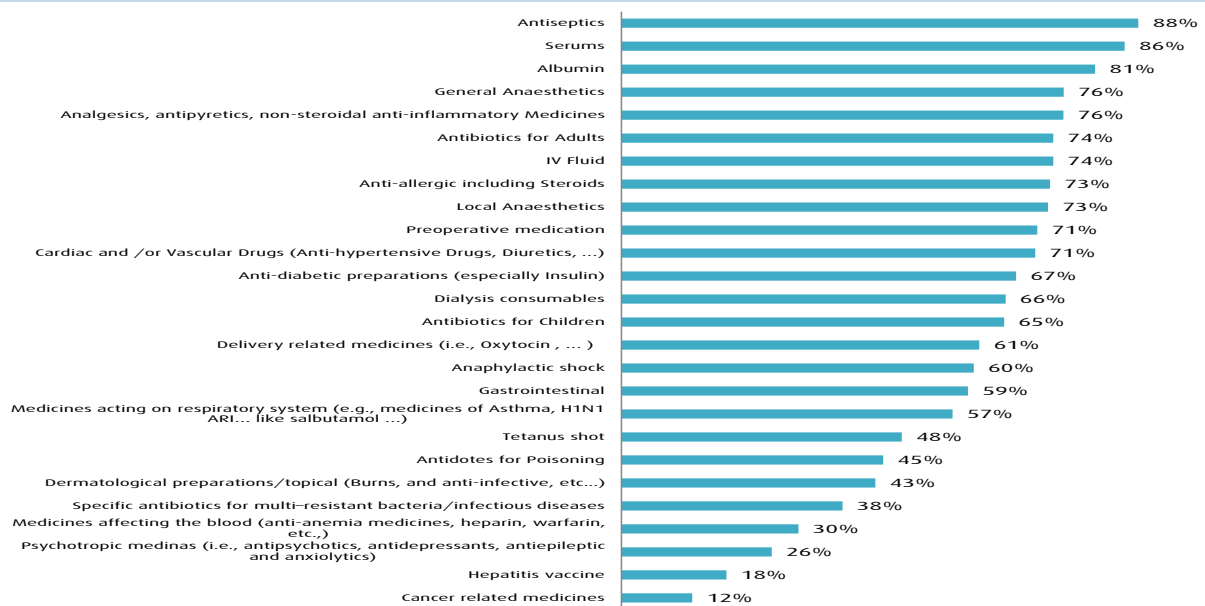
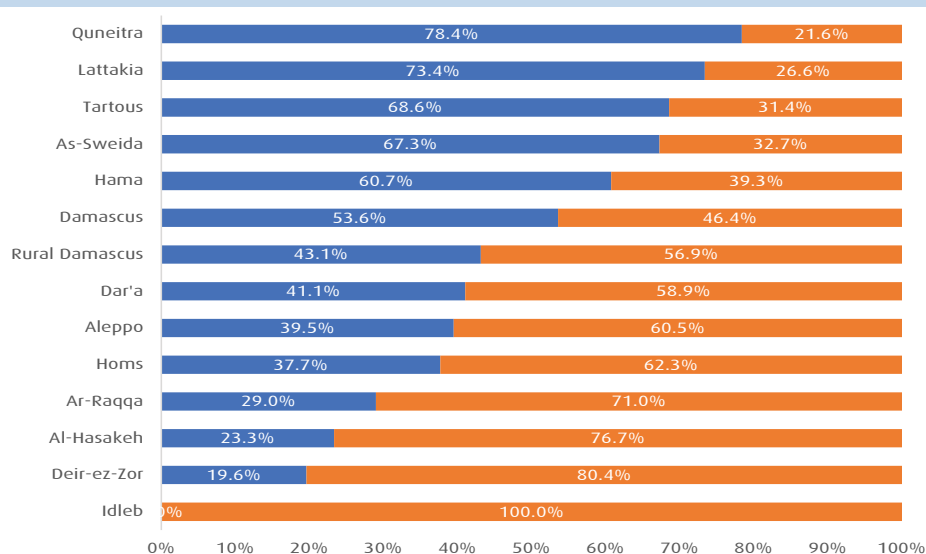


Figure 72: Availability of medicines and medical supplies for one month in the functional public hospitals, per governorate



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 healthcare.

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

9. Conclusions and recommendations

Slight variation of functionality status of public hospitals was observed throughout 2021. For example, 28 hospitals were reportedly out-of-service in December 2021 compared to 28 in January of the same year. Similarly, slight variation of accessibility status to the public hospitals was observed throughout 2021 with 16 hospitals reportedly non-accessible in December 2021 compared to 18 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, and nurses) with slight decreasing of the available number of midwives throughout 2021 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 and another survey on COVID-19 impact, using HeRAMS data as a baseline, will help in concretely measuring the impact of the crisis and COVID-19 on public health sector in terms of responsiveness of hospitals and quality of provided services.

