

HeRAMS

Public  
Hospitals'  
Report

3<sup>rd</sup> Quarter  
2014



## Availability of Health Resources and Services in Public Hospitals in the Syrian Arab Republic

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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 July to September 2014.

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**Cover photo is taken by HeRAMS team during a visit to Homs old city, Oct 2014**

## Executive summary

Regular assessments to monitor the impact of the crisis on the health facilities functionality, accessibility, condition status, availability of resources and services, have been conducted using **HeRAMS** (Health Resources & services Availability Mapping System) tool. The report provides descriptive analysis for the public hospitals from all 14 governorates of Syria, including Ministry of Health (MoH) hospitals (97) and Ministry of Higher Education (MoHE) hospitals (12 out of 14).

The **completeness of reporting** of the public Hospitals [MoH & MoHE], as of end of September 2014 is 98% (109 out of 111).

### Functionality status of the public hospitals:

By end of the 3<sup>rd</sup> Quarter 2014, and out of the 109 reported public hospitals [MoH and MoHE], 44% (48) were reported fully functioning, 34% (37) were reported partially functioning (i.e., shortage of staff, equipment, medicines and damage of the building in some cases), and 22% (24) were reported non-functioning (completely out of services). The hospitals reported partially functioning or non-functioning are in 12 out of a total 14 governorates.

### Accessibility status:

By end of the 3<sup>rd</sup> Quarter 2014, 73% (80 out of the 109) public hospitals [MoH and MoHE] were reported accessible to patients and health staff, while 3% (3) were hard-to-reach and 24% (26) were inaccessible.

### Infrastructure of public hospitals:

By end of the 3<sup>rd</sup> Quarter 2014, out of 109 reported public hospitals [MoH & MoHE], 43% (47) hospitals are damaged (12% fully damaged while 31% partially damaged), and 57% (62) are intact. The hospitals reported damaged (fully or partially), are in 11 out of a total 14 governorates.

### Human Resources:

By end of the 3<sup>rd</sup> Quarter 2014, the proportion of different categories of health staff, among the total functional (fully and partially) MoH & MoHE hospitals (85/109), is as follows: the emergency physicians remain the lowest proportion of health staff (0.4%), followed by pharmacists (1%), dentists (1%), Midwives (5%), specialists (17%), resident doctors (20%), and nurses (56%).

Analysis of proportions of medical staff working at MoHE hospitals versus MoH hospitals has shown that 30% (3,045) of medical doctors (specialists and resident doctors) work in MoHE, while 70% are in MoH hospitals (the percentages calculated out of total medical doctors in MoH & MoHE).

### Health Services

As a result of disrupted healthcare delivery and non-functionality of many hospitals, gaps on provision of health services, even within the functioning hospitals were observed.

Provision of specialized healthcare services remained low (i.e., management of acute malnutrition, management of children diseases, cancer treatment, and mental healthcare), especially after destruction of many of the specialized MoH and MoHE hospitals.

### Availability of Medical Equipment and Machines

The availability of different types of equipment (essential and specialized) and machines has been assessed at hospital level, based on a standard checklist.

Gaps on availability of essential and specialized equipment were observed even within functioning public hospitals [MoH & MoHE] (85/109); such as gaps on Nebulizers (43%).

### Availability of Medicines and Medical Supplies

Availability of medicines and medical supplies at hospitals' level has been evaluated based on standard list of identified priority medicines and medical supplies available for duration of one month. Key gaps on medicines and medical supplies, by end of 3<sup>rd</sup> Quarter 2014 include medicines affecting blood (69%), specific antibiotics for multi-resistant bacteria (60%), and Antidotes for Poisoning (59%).

## 1. Introduction

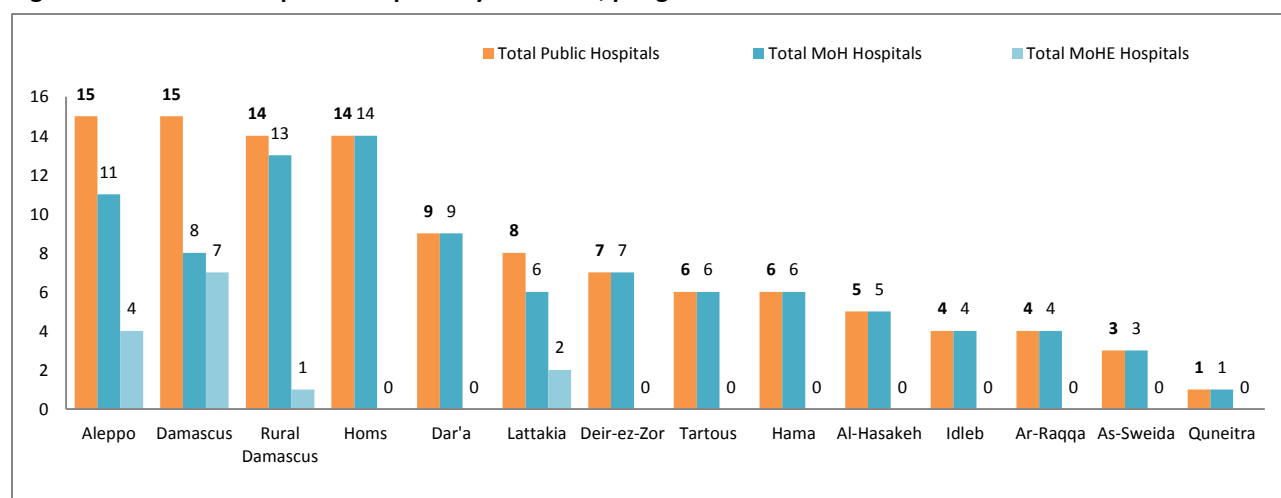
The situation of public hospitals is regularly monitored through HeRAMS (Health Resources & services Availability Mapping System), which is implemented in all Ministry of Health (MoH) hospitals (97) and Ministry of Higher Education (MoHE) hospitals (12 out of 14), in all governorates of Syria.

The completeness of reporting of the public Hospitals [MoH & MoHE], as of end of September 2014 was 98% (109 out of 111).

Data are mainly reported by the MoH & MoHE trained staff on HeRAMS; verified and triangulated by WHO Focal Persons and other sources of information.

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

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



MoHE hospitals are located in four governorates; detailed distribution (number and percent of MoH vs., MoHE hospitals is shown on Table 1.

**Table 1: Distribution of MoH vs., MoHE hospitals (No. and %)**

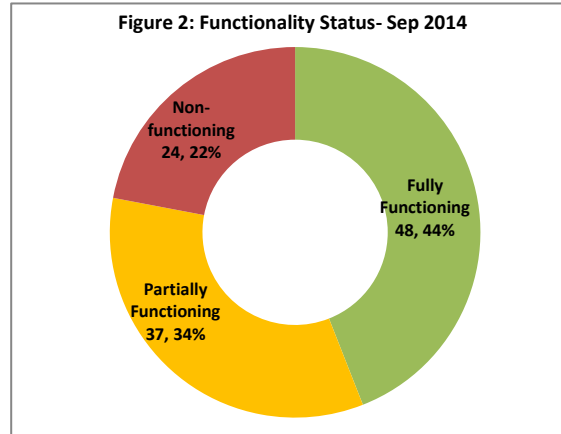
Affiliation of hospitals	Aleppo	Damascus	Rural Damascus	Lattakia
MoH	11 [73%]	8 [53%]	13 [93%]	6 [75%]
MoHE	4 [27%]	7 [47%]	1 [7%]	2 [25%]
<b>Total</b>	<b>15</b>	<b>15</b>	<b>14</b>	<b>8</b>

This report provides descriptive analysis of the functionality status, accessibility, and infrastructure of the public hospitals, available resources & services, and available equipment and medicines, by end of the 3<sup>rd</sup> Quarter of 2014. The provided analysis supports better planning and allocation of resources, and could contribute to significant and focused humanitarian response by WHO and health sector partners.

## 2. Functionality Status of Public Hospitals

Functionality of the public hospitals has been 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).
- ◆ **Not functioning:** a hospital is out of service, because it is either fully damaged, inaccessible, no available staff, or no equipment.



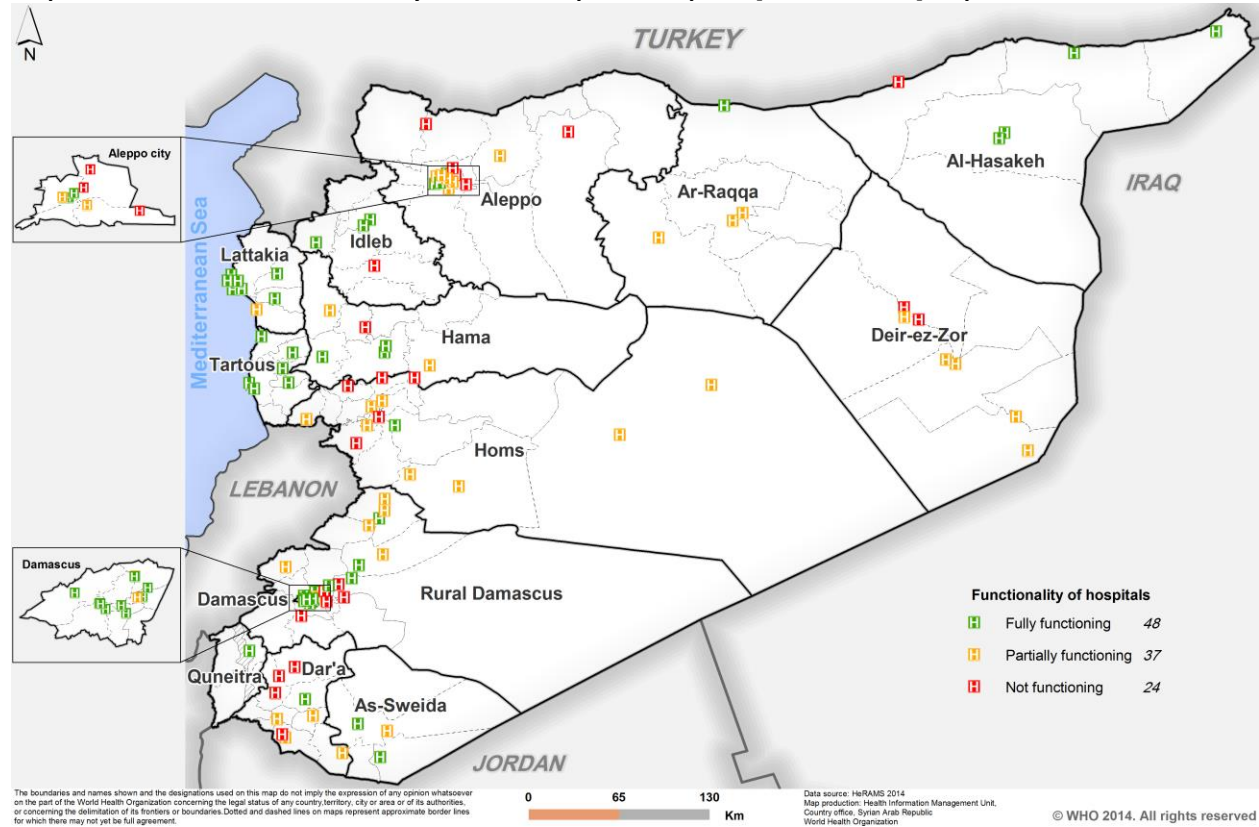
By end of the 3<sup>rd</sup> Quarter 2014, out of the 109 assessed public hospitals [MoH & MoHE], 44% (48) were reported fully functioning, 34% (37) hospitals were reported partially functioning (i.e., shortage of staff, equipment, medicines and damage of the building in some cases), while 22% (24) were reported non-functioning (completely out of service) [Figure 2].

Detailed analysis of functionality status of the MoH and MoHE hospitals at governorate's level is presented in [Figure 3] and [Map 1].

**Figure 3: Number and percentage of fully functioning, partially functioning, and non-functioning hospitals [MoH & MoHE] per governorate, Sep 2014**

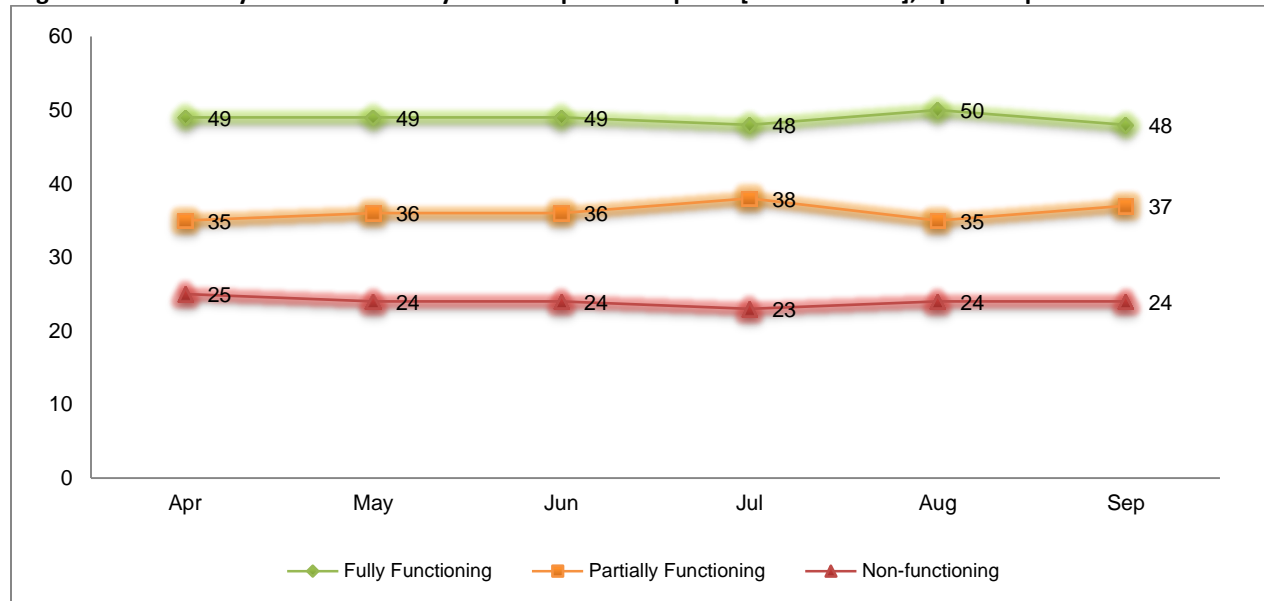


**Map 1: Distribution and Functionality status of the public hospitals [MoH & MoHE], Sep 2014**



Trend analysis on functionality status of the Public Hospitals [MoH & MoHE] from April to September 2014 is presented in Figure 4.

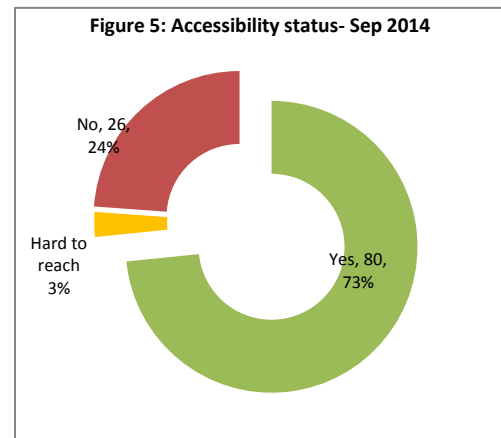
**Figure 4: Trend analysis of functionality status of public hospitals [MoH & MoHE], Apr to Sep 2014**



### 3. Accessibility Status

Accessibility to public hospitals is defined at two 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).



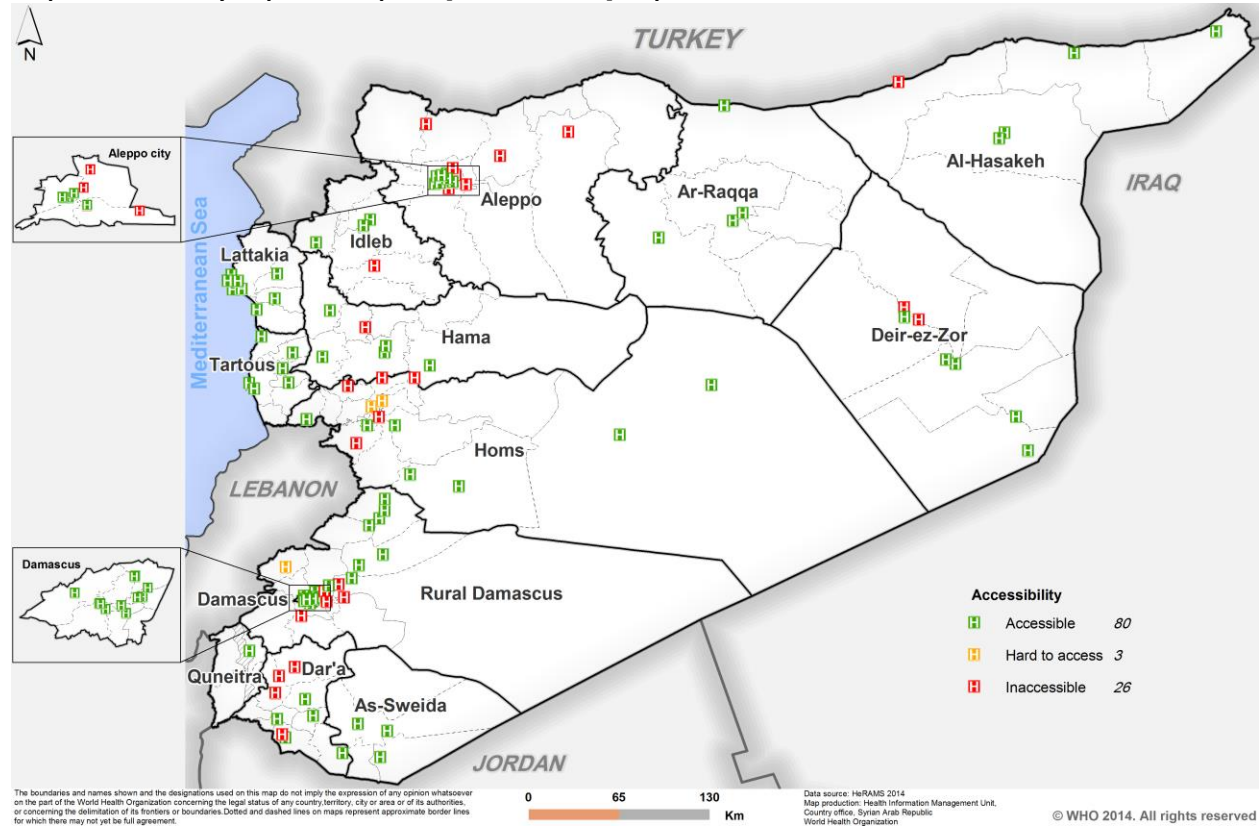
By end of the 3<sup>rd</sup> Quarter 2014, 73% (80) hospitals were reported accessible, 3% (3) hard-to-reach, and 24% (26) were in-accessible [Figure 5].

More details of accessibility status to public hospitals, at governorate level is provided in [Figure 6] and [Map 2].

**Figure 6: Accessibility status of the public hospitals [MoH & MoHE] per governorate, Sep 2014**

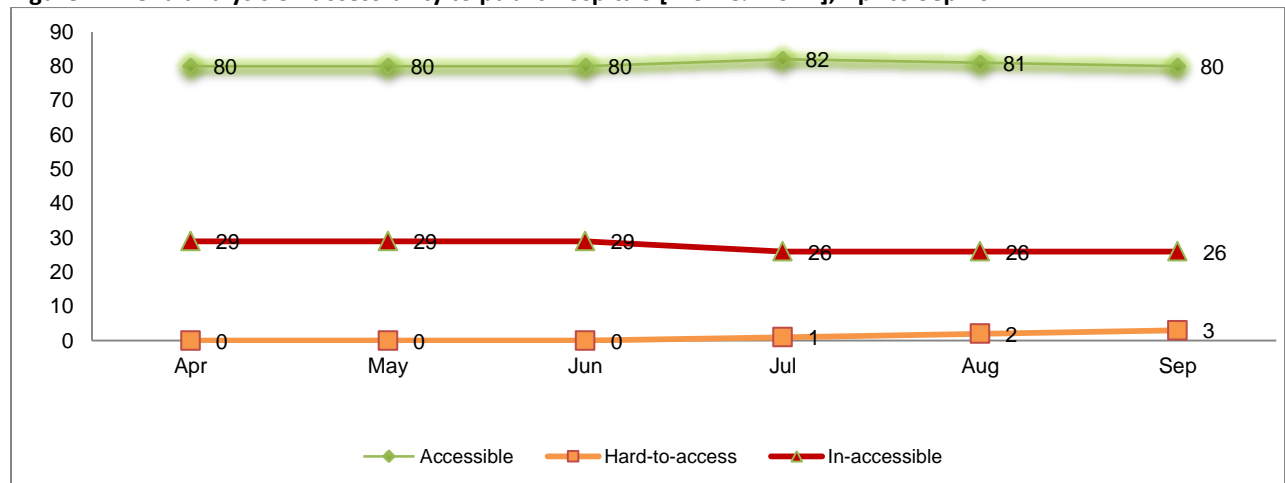


**Map 2: Accessibility to public hospitals [MoH & MoHE], Sep 2014**



Trend analysis on accessibility to public hospitals [MoH & MoHE] from April to September 2014, is presented in Figure 7.

**Figure 7: Trend analysis on accessibility to public hospitals [MoH & MoHE], Apr to Sep 2014**





## 4. Level of Damage of Hospitals' buildings

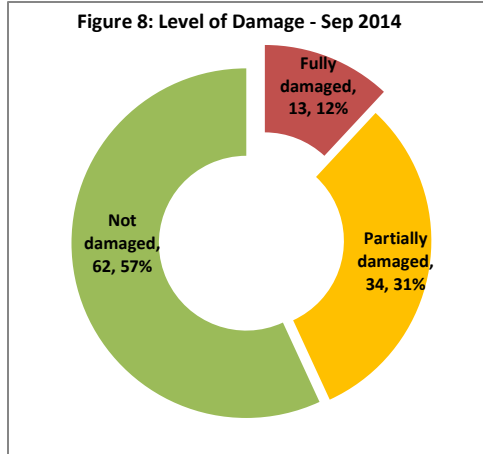
The level of damage to hospital buildings has been measured at three levels:

- ◆ 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.

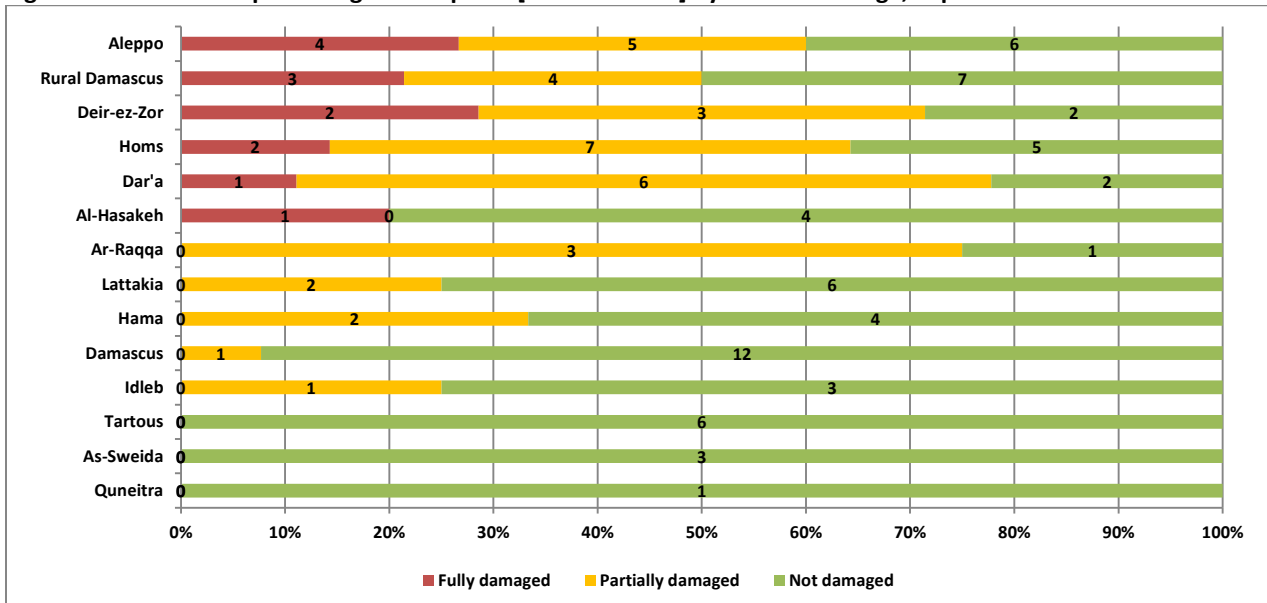
By end of the 3<sup>rd</sup> Quarter 2014, 43% (47) hospitals were reported damaged [12% fully damaged while 31% partially damaged], while 57% (62) of public hospitals were intact [Figure 8].

The hospitals reported damaged (fully or partially), are in 11 out of a total 14 governorates.

Detailed analysis on the number and percent of damaged public hospitals [MoH and MoHE], at governorate level is presented in [Figure 9] and [Map 3]. The List of fully damaged hospitals is provided in Table 2.

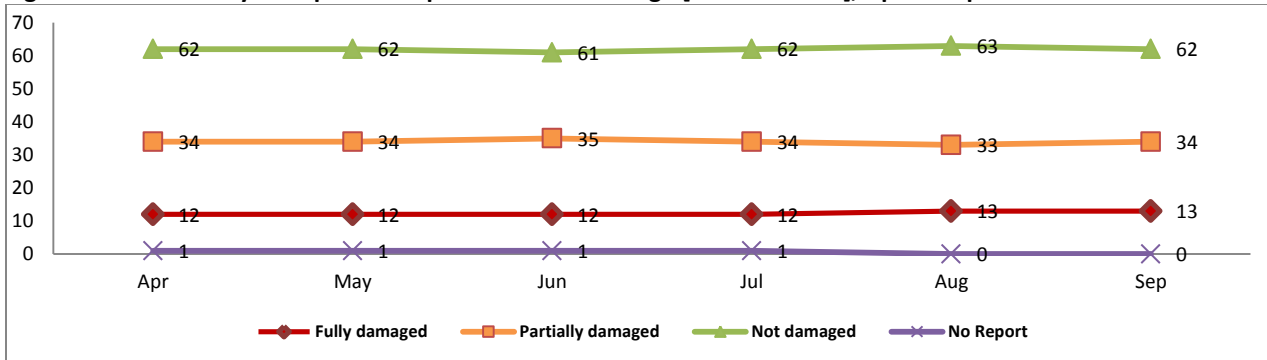


**Figure 9: Number and percentage of hospitals [MoH & MoHE] by level of damage, Sep 2014**

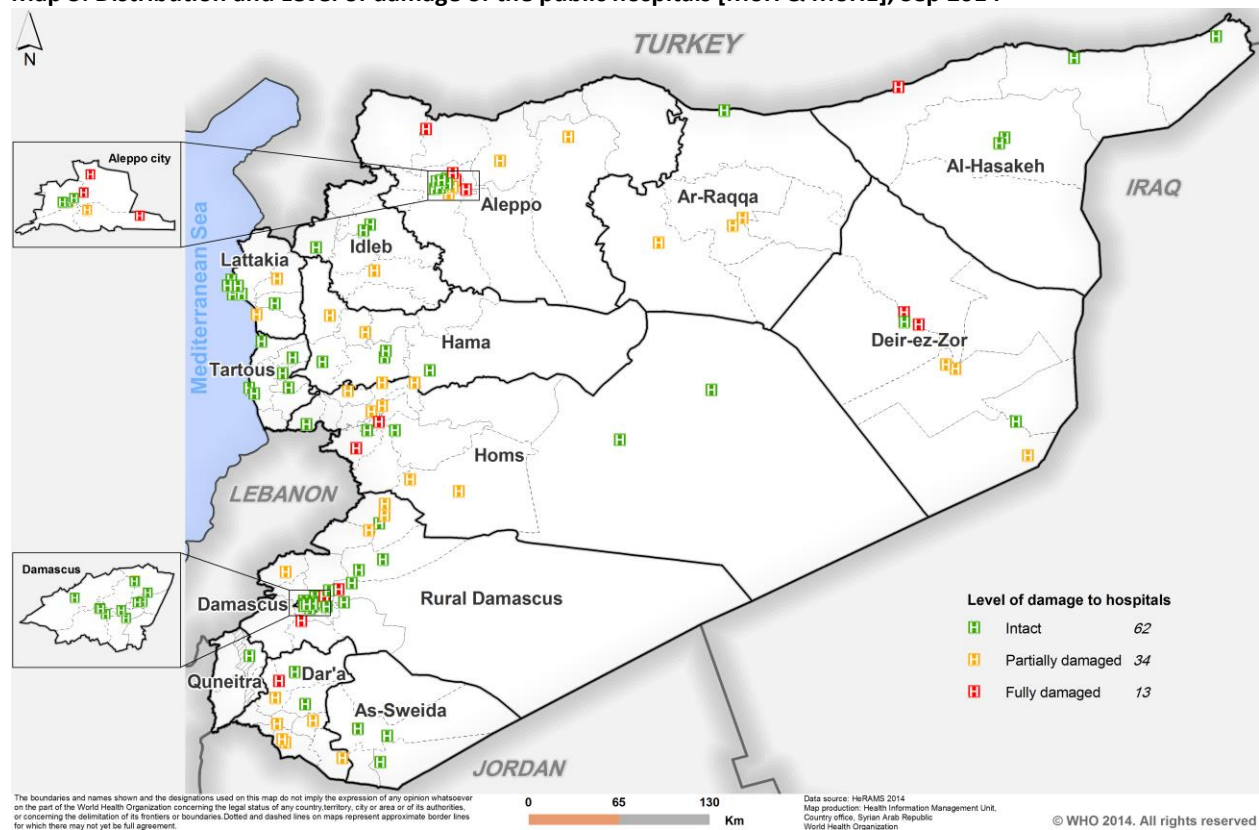


Trend analysis on condition of the public hospitals (level of damage) from April to September 2014, is presented in Figure 10.

**Figure 10: Trend analysis of public hospitals' level of damage [MoH & MoHE], Apr to Sep 2014**



**Map 3: Distribution and Level of damage of the public hospitals [MoH & MoHE], Sep 2014**



**Table 2: List of fully damaged hospitals:**

Province	District	Hospital Name	Affiliation
1. Rural Damascus	Duma	Rural Damascus specialized hospital – Duma	MoH
2. Rural Damascus	Harasta	Harasta general hospital	MoH
3. Rural Damascus	Darayya	Darayya general hospital	MoH
4. Aleppo	Fourth	Zahi Azraq general hospital	MoH
5. Aleppo	E'zaz	E'zaz national hospital	MoH
6. Aleppo	The Third	Ebn Khaldon hospital for mental health	MoH
7. Aleppo	Fourth	Al-Kindi university hospital	MoHE
8. Homs	Al-Qusayr	Al-Qusayr general hospital	MoH
9. Homs	The Second	National hospital	MoH
10. Deir-ez-Zor	Deir-ez-Zor	Maternity and Paediatric specialized hospital	MoH
11. Deir-ez-Zor	Deir-ez-Zor	Alfurat general hospital	MoH
12. Dar'a	Jassem	Jassem general hospital	MoH
13. Al-Hasakeh	Ra's Al-Ein	Ra's Al-Ein National hospital	MoH

## 5. Severity Ranking of Health Situation

The severity ranking exercise was conducted during preparation of HNO (Humanitarian Needs Overview) to identify needs and priority areas of concern for the health sector to support planning of the SRP (Syrian Response Plan) 2015.

The main objective of severity ranking of health situation is to highlight areas of priority/ concern, and support evidence-based planning, coordination of response, and focused geographical health care interventions (e.g., delivery of humanitarian assistance, service provision, capacity building, etc...).

WHO and health sector partners conducted several meetings to review a standard template of severity ranking topics and scales provided by OCHA. Following those meetings, and based on available data, it was agreed to use two key indicators of HeRAMS for severity ranking; accessibility and functionality Status of health facilities.

The following steps were conducted to analyze the severity ranking, at sub-district level:

1. Two key indicators of HeRAMS were considered: accessibility and functionality Status of all health facilities (including public hospitals [MoH & MoHE] and health centres).
2. The data of health facilities' accessibility and functionality status of the 3<sup>rd</sup> Quarter 2014, were compiled, and weighing scale has been assigned, as below:

Functionality Status	Mark	Accessibility	Mark
Fully functioning	0	Accessible	0
Partially functioning	3	Hard to access	3
Not functioning	6	Inaccessible	6

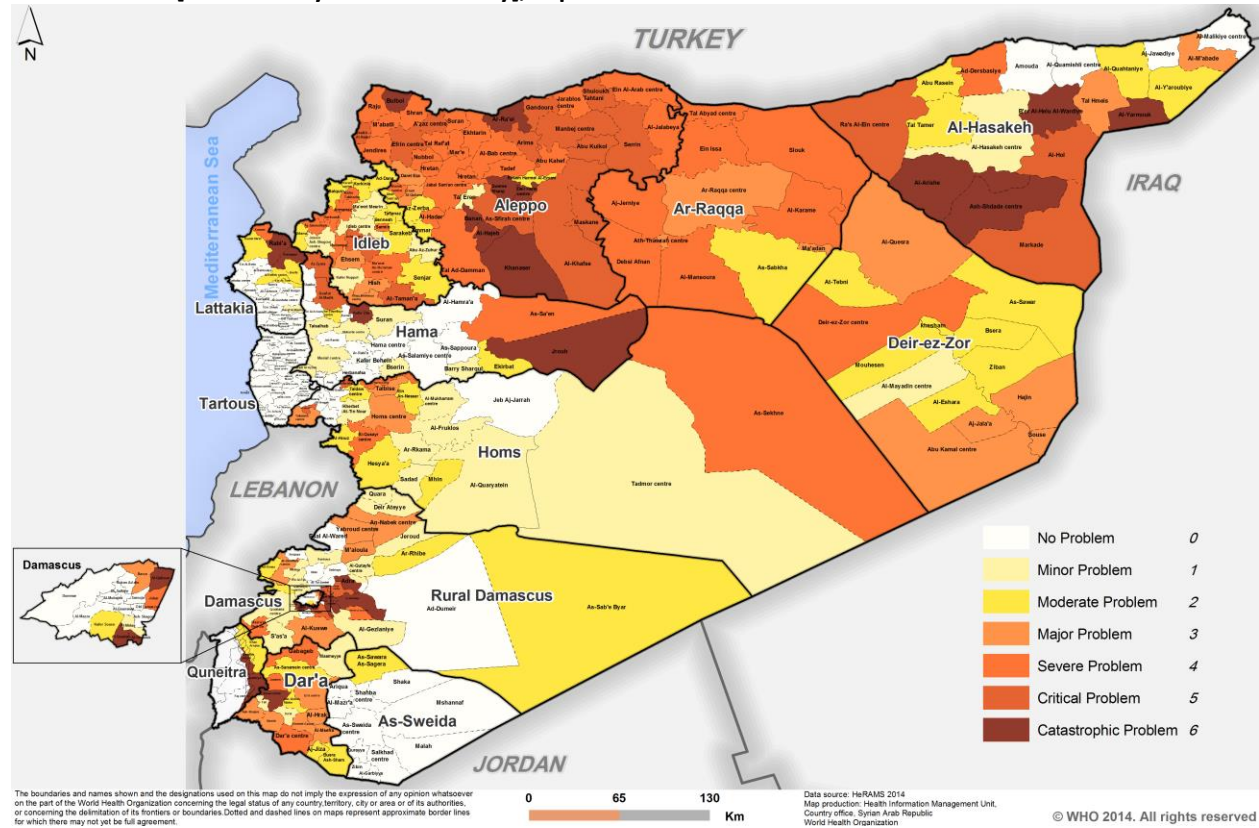
3. At a health facility level, scores of indicators were calculated, based on the above scale.
4. At a sub-district level, total scores were calculated and divided by number of health facilities in the sub-district.
5. Based on a scale of 0 to 6, situation of sub-districts has been ranked, as follows

Catastrophic Problem	6
Critical Problem	5
Severe Problem	4
Major Problem	3
Moderate Problem	2
Minor Problem	1
No Problem	0

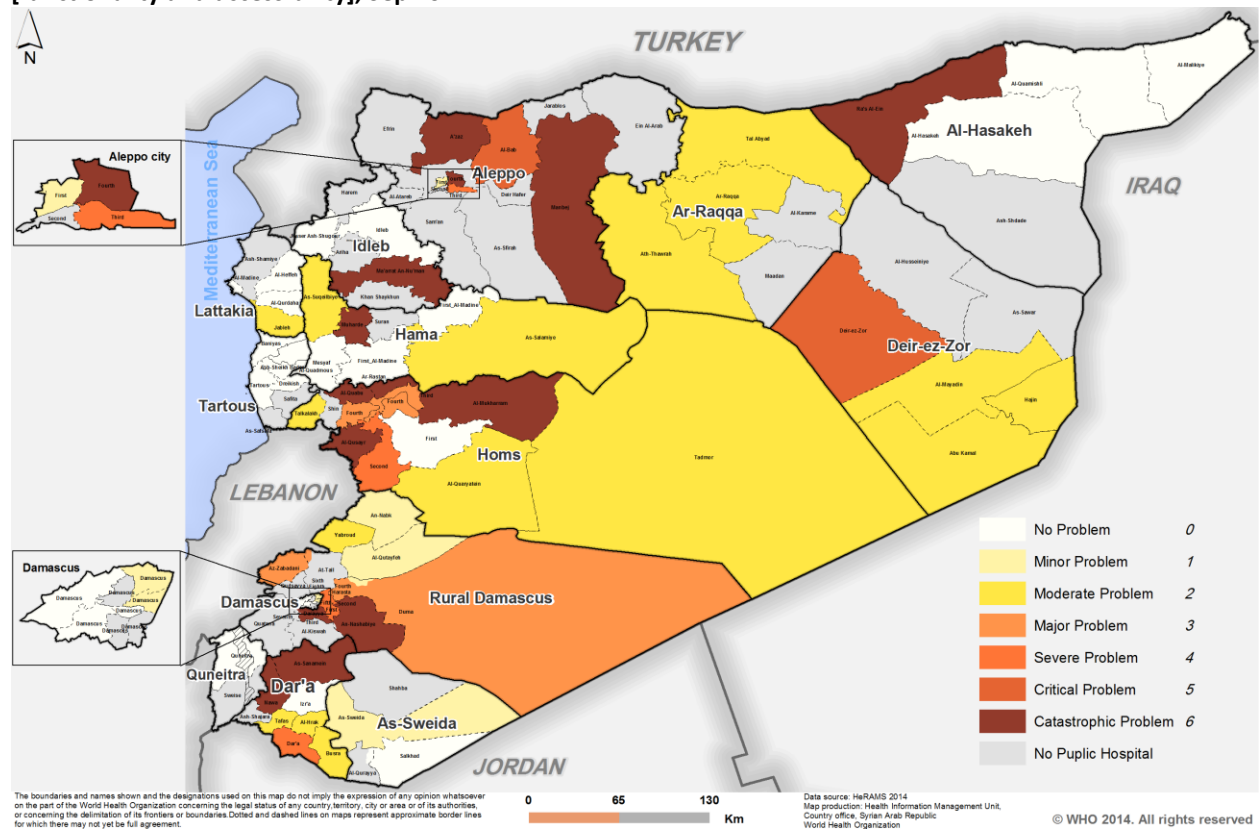
6. Severity ranking map has been produced for health facilities situation, at sub-district level [Map 4].

Following the same methodology, additional map has been produced specifically for severity ranking for public hospitals [MoH & MoHE] at health district level, which is more comprehensive and focused for secondary & tertiary healthcare services [Map 5].

**Map 4: Severity ranking of health facilities [public hospitals and centres] situation at sub-district level, based on two indicators [functionality and accessibility], Sep 2014**



**Map 5: Severity ranking of public hospitals situation at health district level, based on two indicators [functionality and accessibility], Sep 2014**

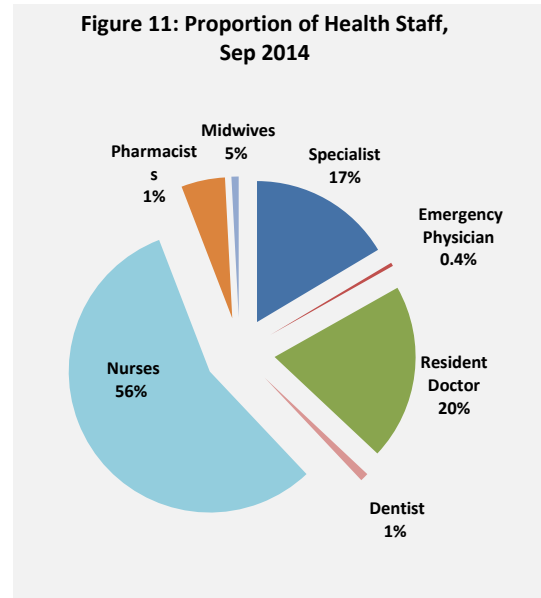


## 6. Availability of Health Human Resources

Availability of health human resources has been analyzed across public hospitals of MoH & MoHE, considering the following scopes:

- ◆ Overall **proportions** of medical staff (doctors, nurses, midwives, and pharmacists)
- ◆ **Proportions** of available medical staff work in MoH vs., MoHE hospitals
- ◆ **Comparison** of available medical staff; MoHE vs., MoH hospitals, distributed in four governorates

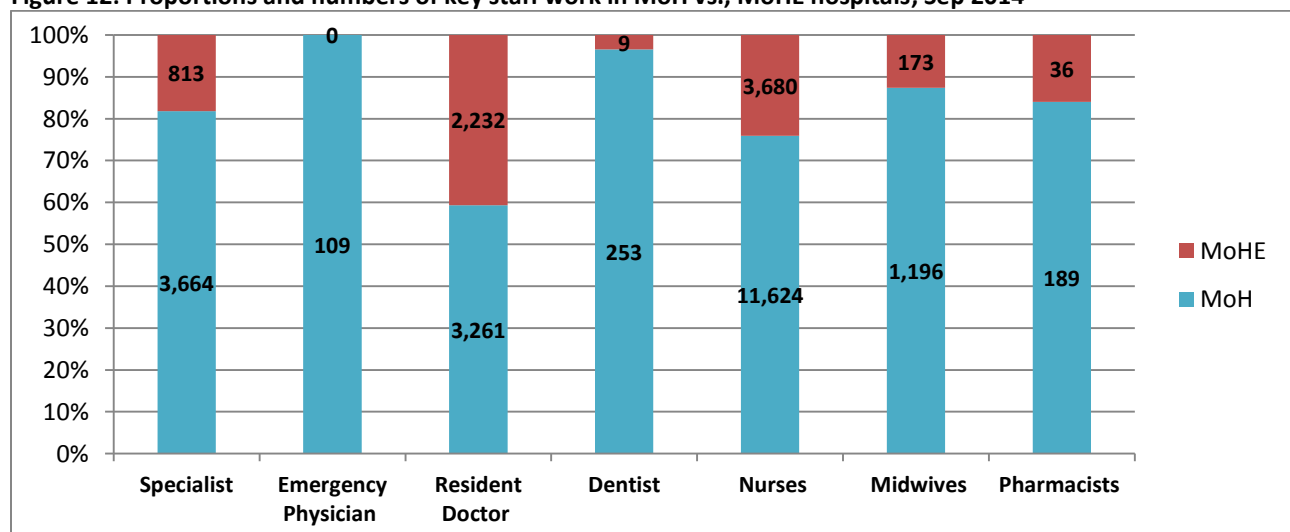
By end of the 3<sup>rd</sup> Quarter 2014, the proportion of different categories of health staff, among the total functional (fully and partially) hospitals (85/109), is as follows: the emergency physicians remain the lowest proportion of health staff (0.4%), followed by pharmacists (1%), dentists (1%), Midwives (5%), specialists (17%), resident doctors (20%), and nurses (56%); [Figure 11].



Analysis of **proportions of medical staff working at MoHE hospitals versus MoH hospitals** has shown that 30% (3,045) of medical doctors (specialists and resident doctors) work in MoHE, while 70% are in MoH hospitals (the percentage calculated out of total medical doctors in MoH & MoHE).

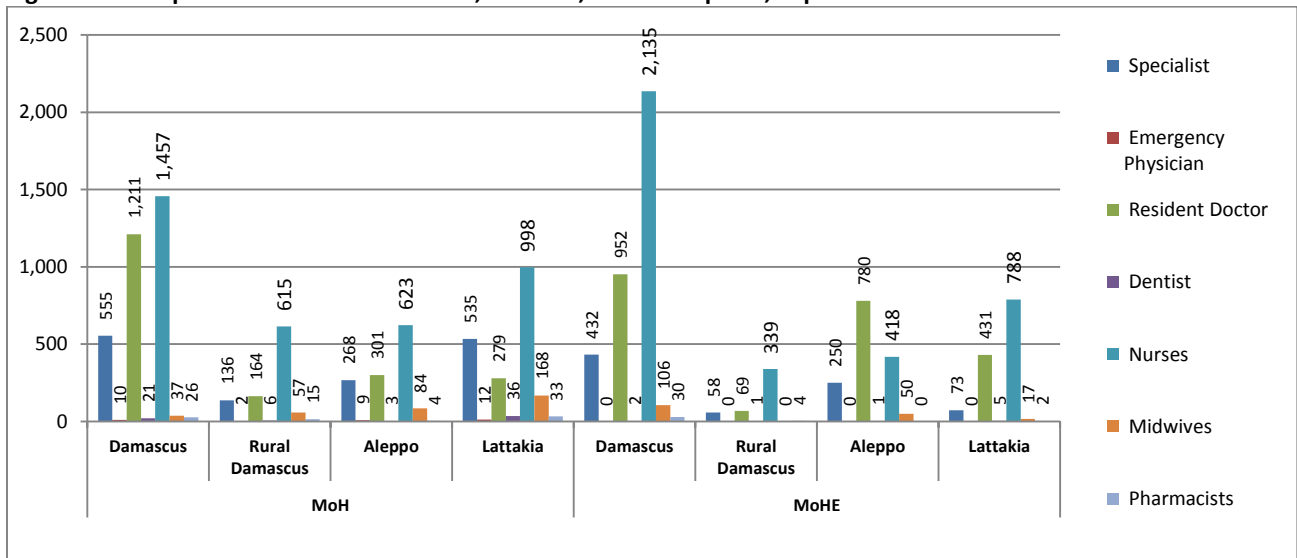
Details on proportions and numbers of key staff work in MoH vs., MoHE hospitals are presented in [Figure 12]. Out of a total **4,477** Specialists work in public hospitals, **18% (813)** are in MoHE hospitals, out of a total **5,493** resident doctors **41% (2,232)** are in MoHE hospitals, and out of a total **15,304** nurses, **24% (3,680)** are in MoHE hospitals.

**Figure 12: Proportions and numbers of key staff work in MoH vs., MoHE hospitals, Sep 2014**



A **comparison** between the available medical-related staff was conducted for both MoH and MoHE hospitals; [Figure 13].

**Figure 13: Comparison of the medical staff, MoH vs., MoHE hospitals, Sep 2014**



## 7. Availability of 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, Non-communicable Diseases, and Mental Health).

Analysis of availability of Health Services has been conducted across all functioning public hospitals [MoH & MoHE]: (85/109).

As a result of disrupted healthcare delivery and non-functionality of hospitals, limited provision of health services has been observed across governorates, even within functioning hospitals [Figure 14].

**Figure 14: Availability of Health Services in the functioning Public Hospitals [MoH & MoHE], Sep 2014**



\*\*Detailed information on availability and utilization of services per governorate is available in HeRAMS Database.

## 8. Availability of Medical Equipment & Machines

The availability of different types of essential and specialized equipment and supplies has been assessed at hospital level, based on a standard checklist<sup>1</sup>.

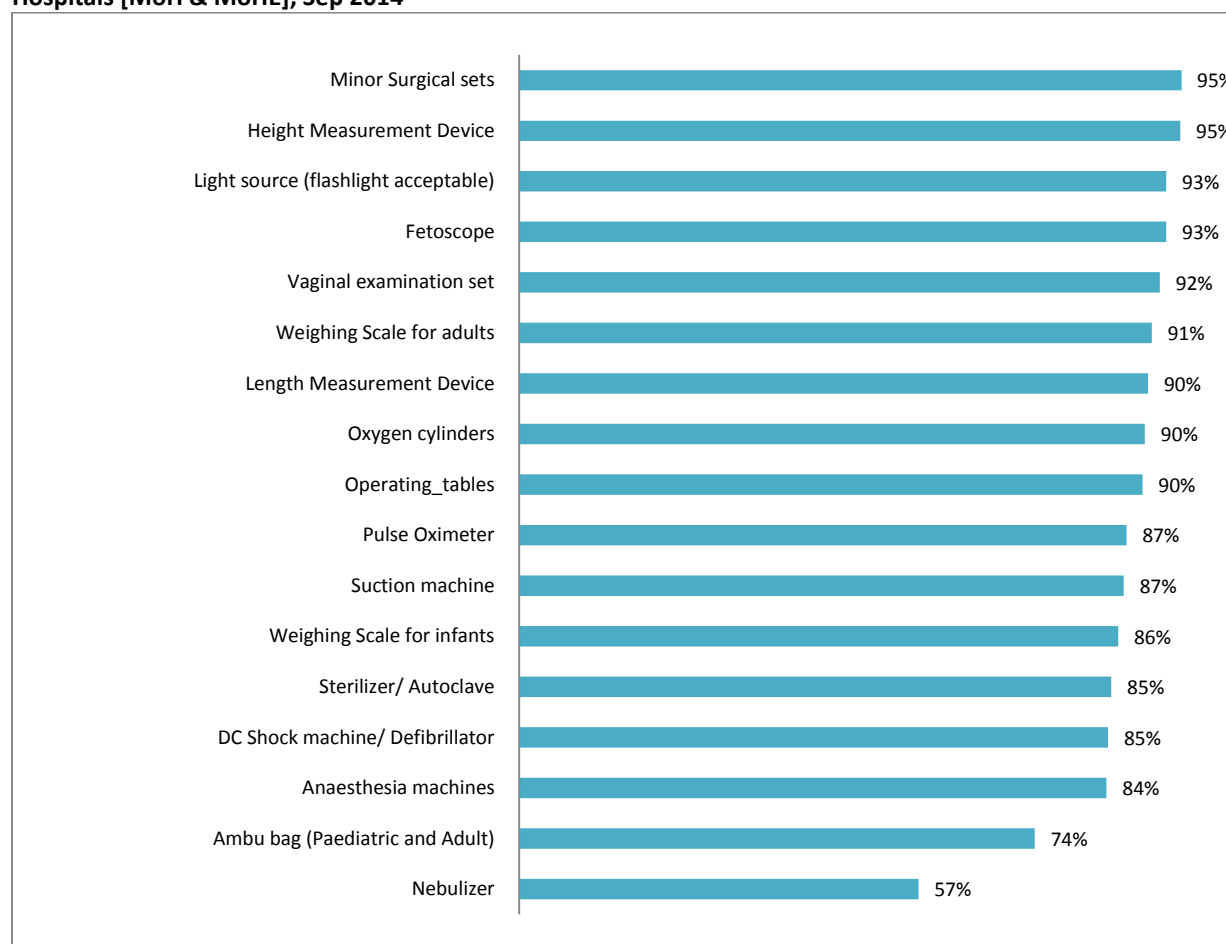
After three years of crisis and irrespective of governorate's security situation, hospitals are suffering of shortage or malfunction of medical devices/ equipment to provide secondary care services. In insecure governorates, medical devices are either destroyed, burned, or malfunctioned, while in safe 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 equipment (essential and specialized) and machines has been measured across all functioning public hospitals [MoH & MoHE] (85/109), in terms of functional equipment out of the total available equipment in the hospital, which provide good indication for the current readiness of the hospitals to provide the health services, compared to the situation prior to the crisis.

Further details on availability of equipment and machines are shown in [Figure 15] and [Figure 16] respectively.

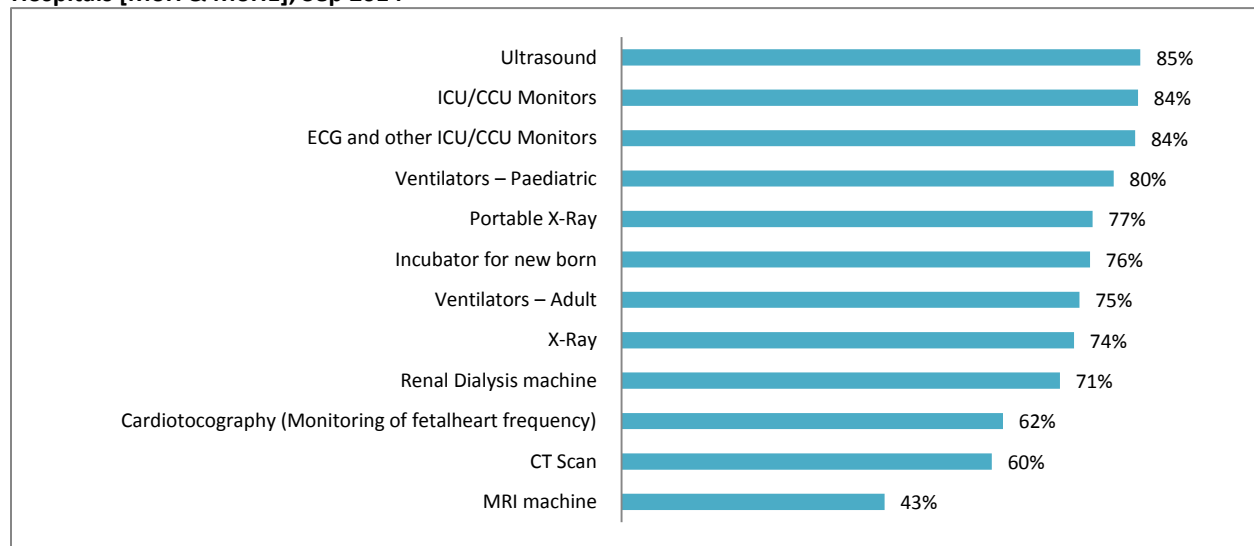
**Figure 15: Percentage of functional essential equipment/ total available equipment, in functioning Public Hospitals [MoH & MoHE], Sep 2014**



<sup>1</sup> A more detailed list of essential equipment is available upon request.



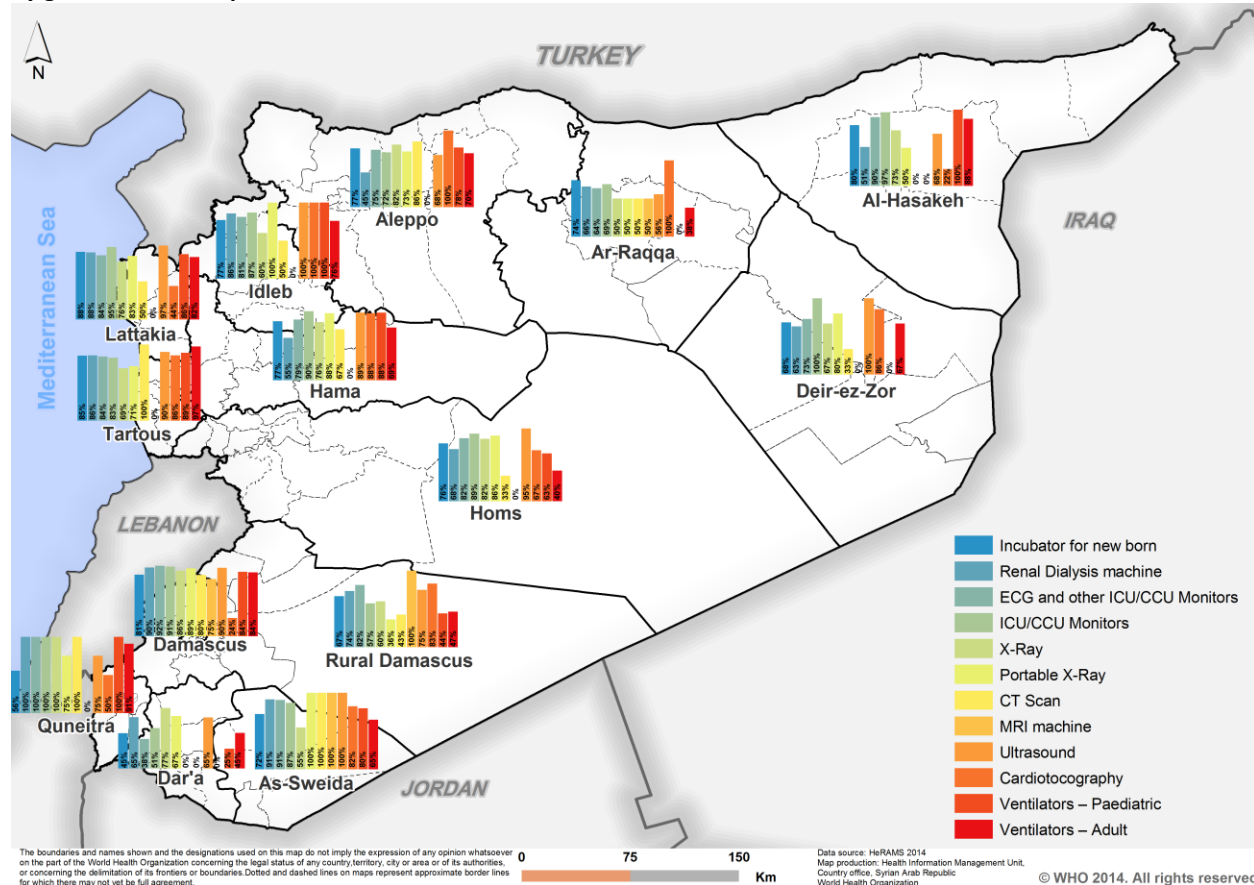
**Figure 16: Percentage of functional specialized equipment/ total available equipment in the functioning Public Hospitals [MoH & MoHE], Sep 2014**



More details on availability of essential, specialized equipment and machines at a hospital level are available in HerAMS Database.

The availability of functional specialized equipment at hospitals is visualized on the map below [Map 6], summarized at governorate level, which could be considered as good indication for more focused planning for procurement of equipment and machines to fill-in gaps.

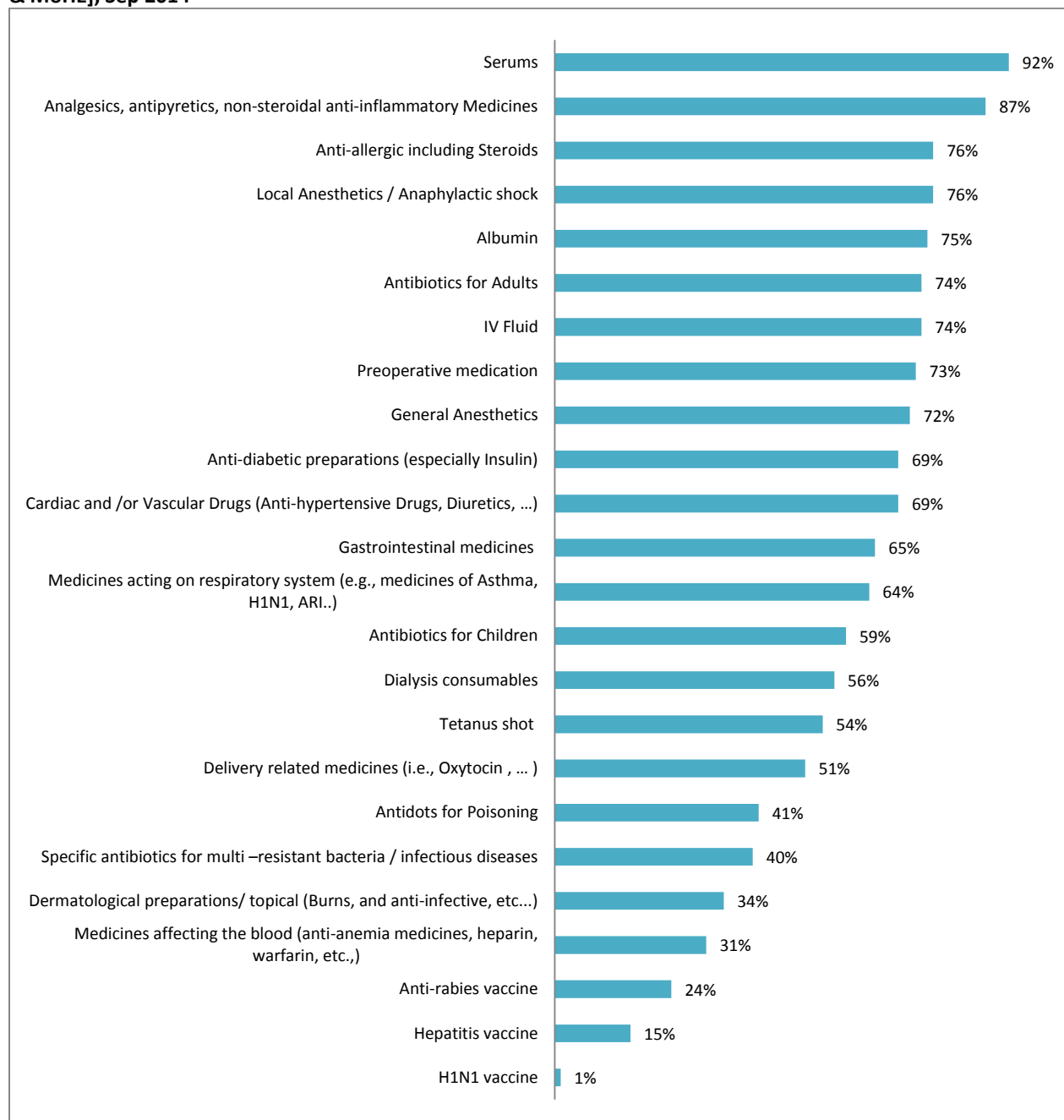
**Map 6: Percent of functional specialized equipment/ total available equipment in functioning public hospitals, by governorates, Sep 2014**



## 9. Availability of Medicines & Medical supplies

Availability of medicines and medical supplies at hospitals' level has been 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; gaps are identified accordingly [Figure 17].

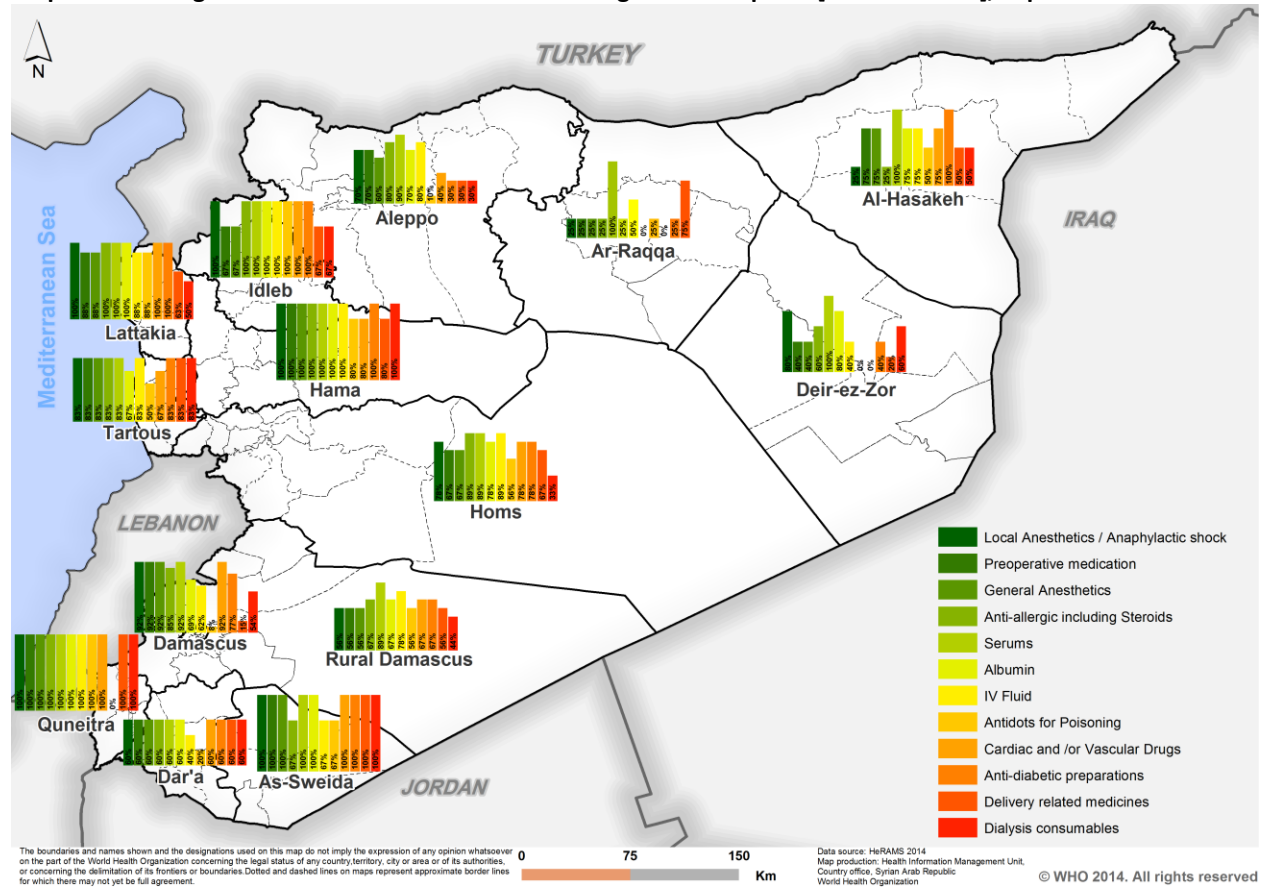
**Figure 17: Availability of medicines and medical supplies for one month in the functioning Public Hospitals [MoH & MoHE], Sep 2014**



More details on availability of medicines and medical supplies at a hospital level are available in HeRAMS Database.

Percentages of available medicines in functioning Public Hospitals by end of 3<sup>rd</sup> Quarter 2014, at governorate level, are presented in [Map 7].

**Map 6: Percentage of available medicines in functioning Public Hospitals [MoH & MoHE], Sep 2014**



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