

LIBYA

SERVICE AVAILABILITY AND READINESS ASSESSMENT

SUMMARY REPORT 2017



World Health
Organization



Humanitarian Aid and
Civil Protection (ECHO)

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FOREWORD

Libya is facing challenges since 2011 which have severely impacted the health system of Libya. The multi sectorial need assessment has identified “health” as the predominant lifesaving need. In order to respond to urgent humanitarian need a strong and functional health system is of the paramount importance.

Unfortunately because of various reasons, the flow of health information gathering has disrupted since 2014.

In order to assess sector readiness to deliver health care to the population, a service availability and readiness assessment (SARA) was conducted which can be used to measure progress in health system strengthening over time on the availability and provision of health services and programs.

The results of the assessment indicate that in general the basic and specialized services are available in whole country.

The target of health facility density, maternity bed density and core health workers density is fully achieved against the international standards.

Due to current challenges, 17% hospitals and 20.1% of PHCs are closed. There is imbalance of human resources and shortage of specialized staff across the country.

The readiness of the public health hospitals need to be improved and we have to concentrate on developing guidelines, standard operating procedures for each specific and specialized service and invest more in developing capacities of individuals and institutions.

I hope that the conclusions of the assessment will encourage all the stakeholders and partners working for health sector to continue with their support.

I assure all the partners that MOH will enhance its contributions to improve the readiness of primary health care facilities and hospitals and will facilitate and support all the partners in an effective manner. Let me seize this opportunity to thank Dr Syed Jaffar Hussain and the whole team of World Health Organization, Libya for their continuous support. I equally thank Health Information Centre, National Centre for Disease Control, Hospital Directorate, PHC Directorate, Ambulance Authority and all other entities of the MOH for their efforts and dedication.

Our special thanks to ECHO for their financial support which enabled us to complete the survey.



Dr. Omer Basher Altaher
Minister of Health
Libya

ACKNOWLEDGEMENTS

In Libya, the service availability and readiness assessment survey (SARA) was conducted in 2016 for the second time by Health Information Centre (MOH) with collaboration of WHO country and regional office. This survey has been developed through a participative process involving considerable contributions and support from various individuals and institutions. I therefore wish to extend my sincere gratitude to His Excellency Dr. Omer Basher Altaher Minister of Health in Libya and all those that contributed to the process of survey implementation and writing this report. We sincerely acknowledge the timely and generous financial support of ECHO, without which the survey would not be conducted and this valuable report would have not been produced.

I would like to acknowledge the World Health Organization country office and WHO regional office for the technical support. Particular recognition go to the Dr. Syed Jaffar Hussain, Head of Mission Libya for spearheading the whole survey and Dr Eman Aly Technical Officer, IER, EMRO for their continuous technical support. I really appreciate the hard work of Eman AbuDahab consultant for WHO for designing software in CSPro and analyzing the data and Ahmad Bayomi engineer IER, EMRO for the technical support.

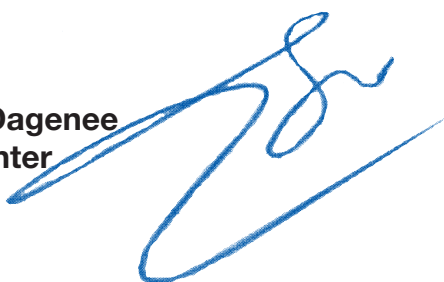
We sincerely acknowledge contribution of the following nationals:

- Dr Ibrahim Ali Jabail, for supervising hospitals survey, and revising the survey data.
- Dr Ghassan Sulaiman Karem, Director of PHC Directorate MOH for revising PHC data.
- Mr Zaed Abdelsalam Mohammed Zaed, for training & supervising the field staff.
- Mr Ali Shaaban Ali Al Tounsi, for training & supervising field staff .
- Mr Omer Alarif Saeid Khableel, for training & supervising field staff.
- Mr Mohammed Almabruk Ghawar, Directorate of Hospital, MOH for revising Hospital data.
- All surveyors for Hospitals and Primary Health Care Facilities.
- All Directors of Health at District and Municipality level.
- All Hospital Directors and Health Facilities Directors.

Finally, I wish to thank the staff of health information center for their contribution throughout the survey.

I hope this report will guide all decision makers in MOH and the partners to plan effectively for strengthening the health system. I wish and pray that this report benefit all the human kind seeking health care in Libyan health facilities and bring happiness to our country.

Mr. Mohammad Ibrahim Saleh Dagenee
Director, Health Information Center
MOH Libya



ACKNOWLEDGEMENTS

It gives me great pleasure to see another evidence based quality outcome of the collaborative work between WHO and Ministry of Health in the form of service availability and readiness assessment report. Libya is facing challenges since years, however the resilience and resolve of the people is far bigger than the challenges and I am quite optimistic that all the challenges will be overcome in an effective manner. I want to congratulate the MOH Libya for completing service availability and readiness survey even in the very difficult circumstances.

Before the conflict, the health indicators of Libya stood very high when compared with regional countries and successfully achieved the millennium development goal indicators related to health. Libya is polio free since decade and has successfully completed the global commitment of switch implementation. Measles is in elimination phase; and even in the crisis the country has not faced any major outbreak.

Historically Libyan health system have strengths of having high facility density, maternity bed density and core health worker density. SARA survey confirms that the strength has been maintained even after years of conflict. The basic health services are available generally in whole country but few selected districts and municipalities need urgent attention.

Result of this comprehensive survey shows significant gap in service availability and readiness of various programs like reproductive maternal newborn child health, immunization, HIV, NCD including mental health. The availability and readiness of basic and specialized services like surgery and emergency also need urgent attention. In order to meet the urgent humanitarian needs, the capacity of primary health care facilities and the hospitals need to be improved on fast track basis. I am particularly concerned about the limited availability of guidelines, standard operating procedures (SOPs) and trained staff in every specific and specialized service area. As a representative of lead technical agency, I assure the people of Libya that together with MOH we will update all the guidelines and will capacitate the individuals and institutions to the utmost.

I acknowledge the financial support of ECHO without which we would have not been able to produce this report. I also appreciate the efforts of my colleagues at the country office and regional office for their efforts.

Finally, I wish to thank HE Minister of Health, all the officials of MOH especially Mr Mohammad Dageene and his team of Health Information Center, Libya for their efforts in completing this survey.

Dr Syed Jaffar Hussain
Representative and Head of Mission
World Health Organization, Libya





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ABBREVIATIONS AND ACRONYMS

BEmONC	Basic Emergency Obstetric Newborn Care
CEmONC	Comprehensive Emergency Obstetric Newborn Care
CSPro	Census and Survey Processing System
CT	Computerized Tomography
DHO	District Health Officer
E.N.T	Ear, Nose and Throat
ECG	Electrocardiograph
GHs	General Hospital
HC	Health Center
HMIS	Health Management Information System
HQ	Headquarter
ICU	Intensive Care Unit
IMPAC	Integrated Management of Pregnancy and Childhood
MoH	Ministry of Health
NGO	Non-Governmental Organization
OBS/GYN	Obstetrics and Gynecology
OPD	Out-Patient Department
PHC	Primary health care
SARA	Service availability and Readiness Assessment
WHO	World Health Organization

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EXECUTIVE SUMMARY

The service availability and readiness assessment survey (SARA) is a systematic survey which aims to provide reliable information on availability and readiness of the service delivery. This is the second time Libya is conducting the service availability and readiness assessment survey (SARA). The first SARA survey was conducted in 2012. The current SARA survey was conducted as a census covering all the 1656 public health facilities. It was a collaborative effort of WHO and MOH and was supported by ECHO.

The survey for the hospitals started in August and ended in mid-December 2016 while survey for PHCs data started in September 2016 and ended in February 2017. The population estimates for 2017 based on 22 districts were provided by Bureau of Statistics, Libya.

1. Status of Health Facilities in Libya :

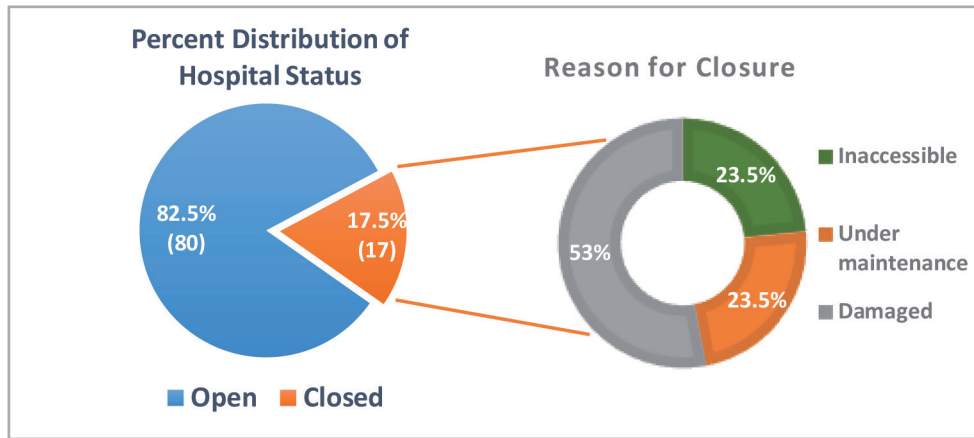
In Libya there are 97 public hospitals, 1355 primary health care facilities (primary health care units, centers and polyclinics) and 204 other specific health service facilities. At the time of survey 17 (17.5%) hospitals, 273 (20.1%) primary health care facilities and 18 (8%) other specific health services were closed. Benghazi region was the worst affected region followed by south. Private sector also contributes in the health service delivery and have 157 private hospitals (centers) having a bed capacity of 2812. There are 503 outpatient clinics which are equipped with diagnostic facilities and have 302 dental clinics, 2254 pharmacies and 426 private laboratories.

Table 1 : Health facilities status according to facility type by region

Region	Public Hospitals			PHC			Other health facilities			Total public health facilities		
	Open	Closed	Total	Open	Closed	Total	Open	Closed	Total	Open	Closed	Total
East	14	0	14	154	80	234	30	1	31	198	81	279
Benghazi	10	9	19	93	32	125	26	5	31	129	46	175
Central	8	2	10	100	29	129	25	5	30	133	36	169
South	7	2	9	158	28	186	19	4	23	184	34	218
Tripoli	21	2	23	286	44	330	31	0	31	338	46	384
West	20	2	22	291	60	351	55	3	58	366	65	431
Total	80	17	97	1082	273	1355	186	18	204	1348	308	1656

2.1 Working Status of Hospitals and Reason for Closure :

Figure 1 : Status of Hospitals and Reason of Closure



The reason of closure of 17 (17.5%) public hospitals were as follows.

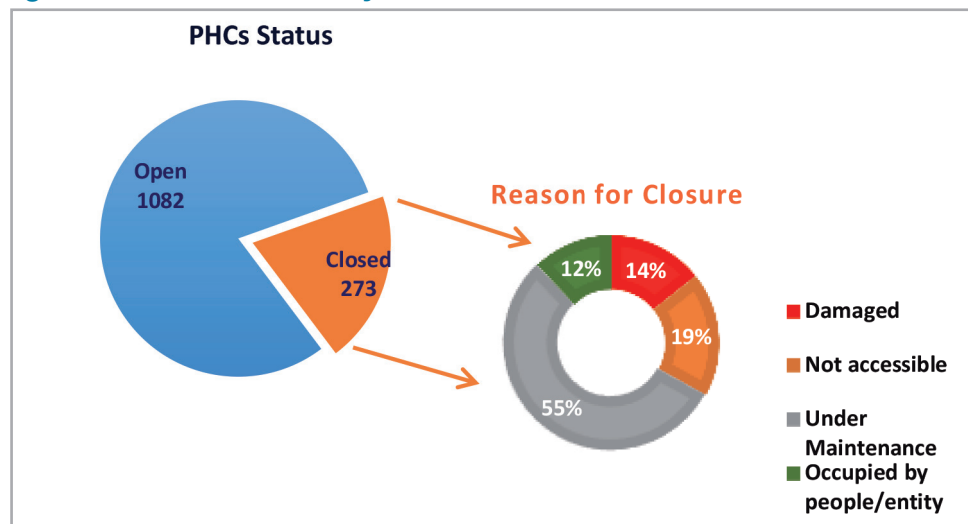
- 9 hospitals (53%) were damaged.
- 4 hospitals (23.5%) were inaccessible
- 4 hospitals (23.5%) were under maintenance.

Details by region are annexed as table A1.

1.1 Working Status of Primary Health Care Facilities and Reason of Closure:

Out of the total 1355 primary health care facilities (polyclinics, centers and units), 273 (20.1) % of the facilities were closed. Results by region are annexed as table A2.

Figure 2 : Status of Primary Health care Facilities and reason of closure



Analysis shows that 194 (26.6%) primary health care units, 73(8.7%) primary health care centers and 6 (10.7%) polyclinics were closed. The reason of closure of primary health care facilities were as follows.

- 55 % primary health care facilities were under maintenance.
- 19% primary health care facilities were not accessible.
- 14% primary health care facilities were damaged.
- 12% primary health care facilities were occupied by people/entities.

1.2 Functional status of other health facilities :

There are 204 others specific services facilities which include 27 NCDC branches, 31 dialysis center and 12 dental clinics. The other facilities providing specific services also includes 51 ambulance centers, 8 referral medical laboratories, 6 regional blood banks, 6 infertility specialized centers, 3 diabetes treatment centers and communicable disease control and immunology center. Details on “other” primary health care facilities by districts is annexed as A3.

Survey confirms that out of total 204 facilities, 18 (8.8%) were closed. These include 4 NCDC branches, 5 dialysis units, 2 medical supply warehouse, 4 ambulance centers, 1 referral medical laboratory, 1 blood bank and one infertility specialized center.

1.3 Health facility density :

The facility density is primarily an indicator of outpatient service access. All the public and private health facilities which were open and working during the time of survey were included in the calculation of the facility density. These include 80 functional public hospitals and 157 private inpatient clinics (hospitals), 492 outpatient clinics and 1355 public primary health care facilities. The target is having two facilities per 10,000 population.

Based on 2017 estimated population provided by Bureau of Statistics, the overall total health facility density was 2.80 facilities per 10,000 population. In summary, the total target of facility density by international standards is well achieved.

Table 2 : Facility density per 10,000 population according to facility type by region

Region	Hospitals			Primary Health Care						Total (Hospitals, PHCs, and private outpatient clinics)		Target achievement Score
	Public	Private Inpatient	Density	Primary Health Unit	Primary Health Center	Polyclinic	Private Outpatient clinic	Total (PHCs) & Private outpatient clinic	Density	Number	Density	
East	14	11	0.29	59	84	11	60	214	2.52	239	2.81	100%
Benghazi	10	14	0.24	31	57	5	70	163	1.64	187	1.88	94%
Central	8	20	0.33	50	42	8	45	145	1.71	173	2.04	100%
South	7	5	0.26	90	65	3	34	192	4.24	204	4.50	100%
Tripoli	21	84	0.48	119	150	17	190	476	2.15	581	2.63	100%
West	20	23	0.38	185	100	6	104	395	3.45	438	3.83	100%
Total	80	157	0.36	534	498	50	503	1585	2.44	1822	2.80	100%

2. Current status of inpatients beds and Inpatient bed density :

2.1 Current status of inpatient beds :

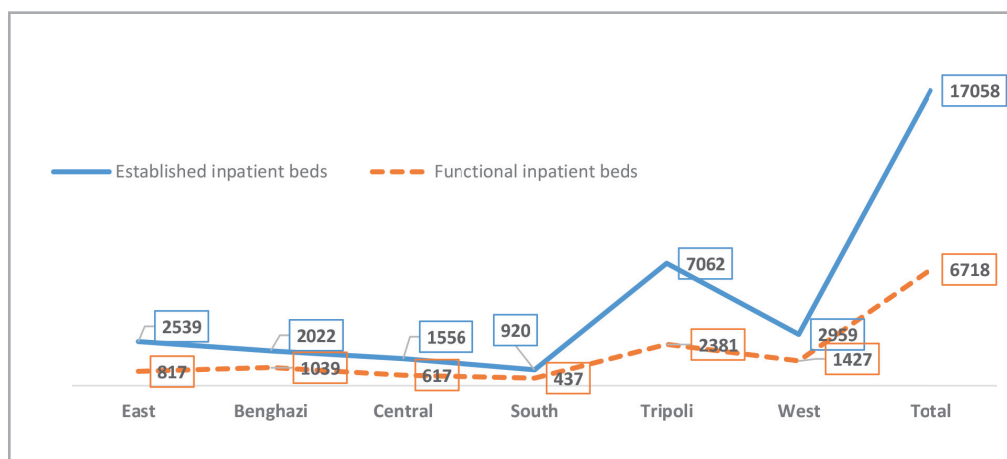
Result shows that the public health facilities inpatient bed capacity was 7126 beds. Majority of inpatient beds were in hospitals (94%) while PHCs were contributing only 6% of inpatient beds. The private sector have only 2812 inpatient beds.

Table 3 : Number of inpatient beds by type of facilities and region

Region	Hospitals			Primary Health Care	Total (Hospitals and PHCs)
	N of Inpatient Beds (Public)	N of Inpatient Beds (Private)	Total inpatient beds	N of Inpatient Beds	N of Inpatient Beds
East	817	161	978	31	1009
Benghazi	1039	217	1256	35	1291
Central	617	452	1069	83	1152
South	437	74	511	64	575
Tripoli	2381	1510	3891	20	3911
West	1427	398	1825	175	2000
Total	6718	2812	9530	408	9938

Figure 3 shows the difference between established and inpatient beds. Established beds are the official number of beds, while functional beds are those which were functional at time of survey. The inpatient bed functional bed capacity of hospitals had decreased from 17058 inpatient beds to 6718 beds. The declined trend was observed in almost all regions but significantly in Tripoli region.

Figure 3 : Hospitals inpatients gap by region



2.2 Inpatient bed density :

Inpatient bed density is an indicator for inpatient service access. Pediatric beds are included but maternity beds are excluded. The target is 25 beds per 10,000 population.

Inpatient density includes both public and private inpatient beds. Table 4 shows that overall the functional inpatient bed density is 15 beds per 10,000 population which is significantly lower than the target value of 25 beds per 10,000 population. If we consider the public inpatients beds only then the achieved value is 11 beds per 10,000 population which is more than two times lower than the target value.

Table 4 : Inpatient bed density per 10,000 population by type of facilities and region

Region	Hospitals				Primary Health Care		Total (Hospitals and PHCs)		Target achievement Score*
	N of Inpatient Beds (Public)	N of Inpatient Beds (Private)	Total inpatient beds	Inpatient Beds Density per 10000 population	N of Inpatient Beds	Inpatient Beds Density per 10000 population	N of Inpatient Beds	Inpatient Beds Density per 10000 population	
East	817	161	978	11.5	31	0.4	1009	11.9	47%
Benghazi	1039	217	1256	12.6	35	0.4	1291	13.0	52%
Central	617	452	1069	12.6	83	1.0	1152	13.6	54%
South	437	74	511	11.3	64	1.4	575	12.7	51%
Tripoli	2381	1510	3891	17.6	20	0.1	3911	17.7	71%
West	1427	398	1825	15.9	175	1.5	2000	17.5	70%
Total	6718	2812	9530	14.7	408	0.6	9938	15.3	61%

* The target is 25 inpatient beds per 10000 population

3. Maternity bed density:

Maternity beds are inpatient beds that are used exclusively by pregnant women before and after delivery. Maternity bed density provides an indicator of access to delivery services. The indicator does not include delivery beds. The target is 10 maternity beds per 1000 pregnant women.

Maternity bed density is based only on public health facilities. The total maternity bed density was 13.23 maternity beds for 1000 pregnant women. This target was well achieved against the international standard of 10 maternity beds per 1000 pregnant women. Analysis by region shows that all the region have achieved this target.

Table 5 : Maternity bed density per 1000 pregnant women by type of facilities and region

Region	Public Hospitals		Primary Health Care		Total (Hospitals and PHCs)		Target achievement Score*
	N of Maternity Beds	Maternity Beds Density	N of Maternity Beds	Maternity Beds Density	N of Maternity Beds	Maternity Beds Density per 1000 population	
East	317	14.88	2	0.000	319	14.97	100%
Benghazi	184	10.47	12	0.001	196	11.15	100%
Central	237	11.83	5	0.000	242	12.08	100%
South	119	10.63	18	0.002	137	12.24	100%
Tripoli	609	12.46	10	0.000	619	12.66	100%
West	433	15.19	6	0.000	439	15.40	100%
Total	1899	12.88	53	0.000	1952	13.23	100%

* The target is 10 maternity beds per 1000 pregnant women

Analysis by district shows that 8 districts out of 22 have not achieved the target value of 10 maternity beds per 1000 pregnant women. These districts include Benghazi, Al jabal Al Akhdar, Sirt, Al Jifarah, Al zawiah, Wadi alhaya, Murzuq and Ghat. Although each district has its own peculiar reasons for not achieving this target but in general, the following are the reasons for not achieving the target.

1. Majority of the hospitals and PHCs were closed in these districts.
2. Ghat has only one hospital which is closed and as per definition there is no maternity bed. However research team confirms that maternity services were provided from a temporary alternative facility.

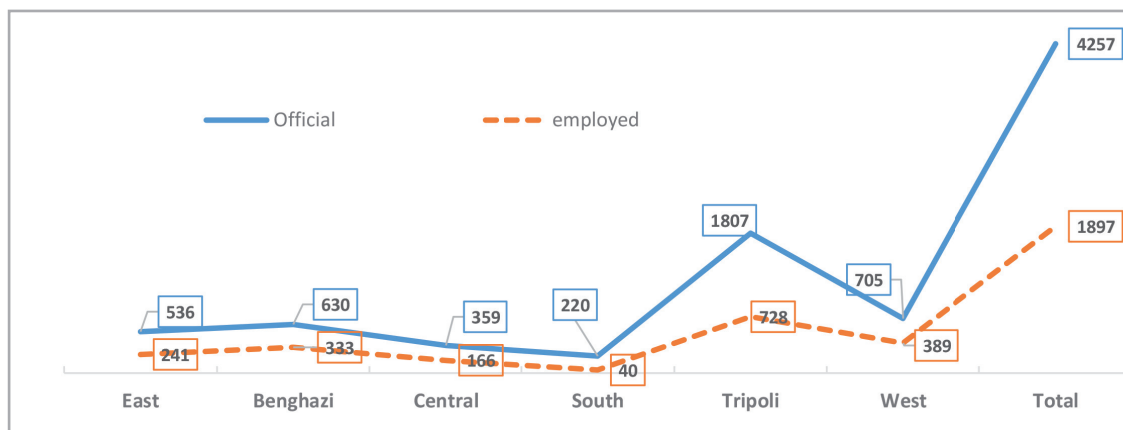
4. Frequency of health workers and core health worker density :

Access to core health professionals is an essential component of health service delivery. Acute shortages and uneven geographic distribution of health workers are common problems that lead to inaccessibility or unequal access to essential health services. The core health workforce density indicator focuses on the core medical professionals: physicians, medical licentiates, clinical officers, registered nurses and midwives. WHO estimates that countries fewer than 23 core health workers per 10 000 population will be unlikely to achieve adequate coverage rates for the key primary health-care interventions prioritized by MDGs.

4.1 Specialists Physicians : Hospital :

Figure on the gap of specialist doctor shows a gap in specialist doctors across the country. Out of the total (4257) officially sanctioned specialist, there were only 1897 specialists. The gap of specialist is predominately more in Tripoli region followed by Benghazi region.

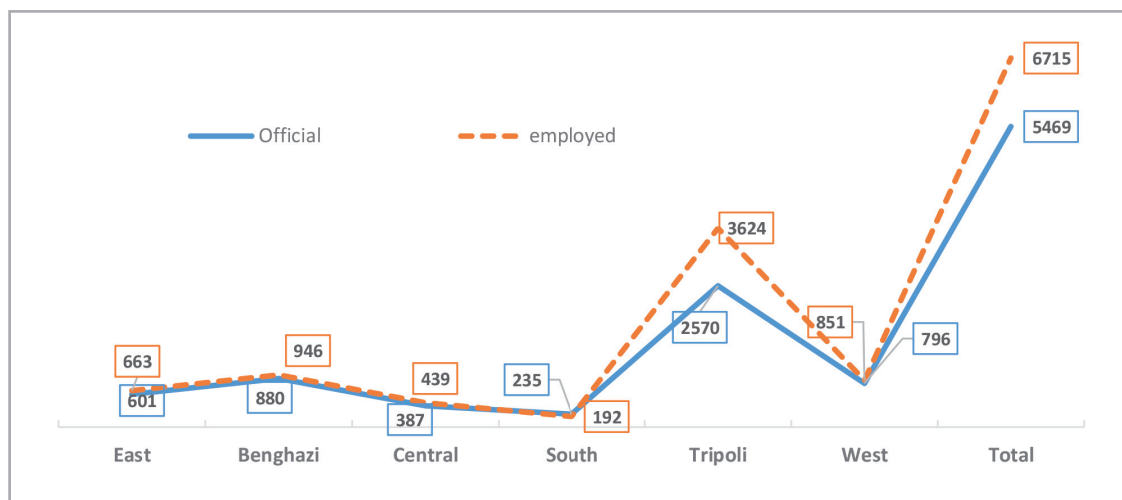
Figure 4 : Hospitals specialist physicians' gap by region



4.2 Generalist Physicians : Hospital :

Figure 5 on the gap of generalist physicians shows that there was no gap in generalist physicians in the country at time of survey except South region. Overall 1246 generalist physicians were working more than the allocated sanctioned posts. However In South, there was a gap of 192 generalist physicians

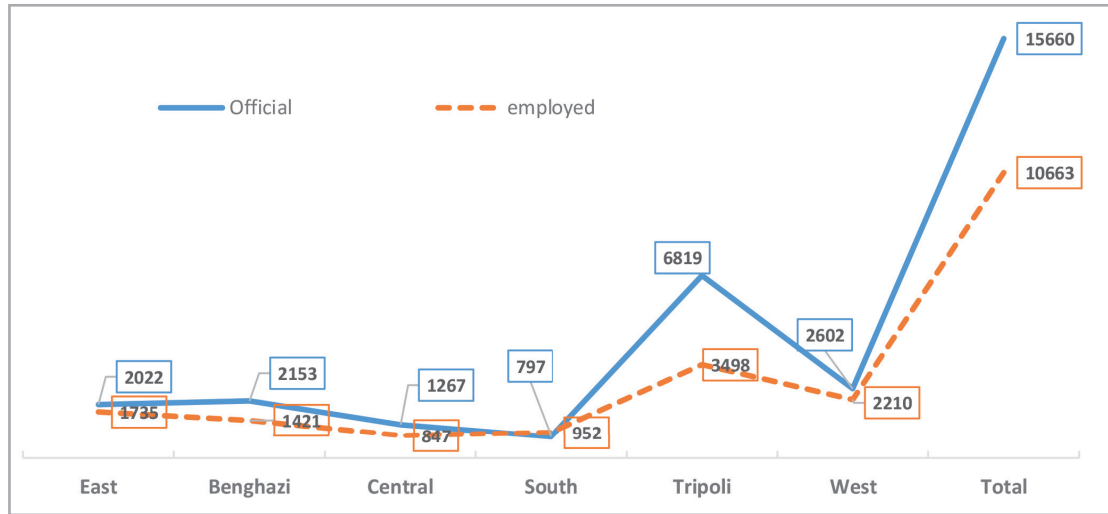
Figure 5 : Hospitals generalist physicians' gap by region



4.3 Hospital Nurses :

Figure on the gap of hospital nurses shows that there was a gap of 4997 nurses in the hospitals across the country except South where 155 nurses are working more than the officially allocated quota.

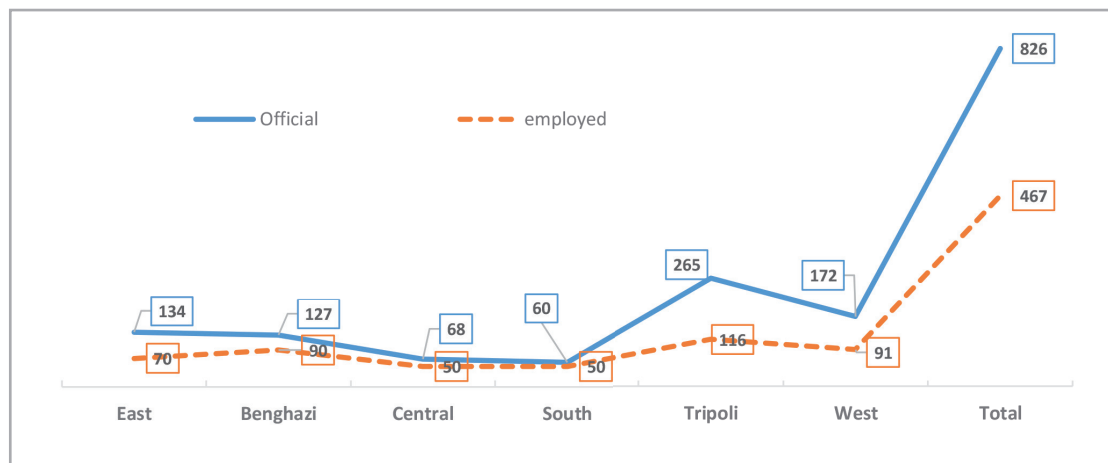
Figure 6 : Hospital nurses gap by region



4.4 Hospital Midwives :

Figure on the gap of hospital midwives shows that there is gap of 359 midwives in the hospitals across the country. The gap is significantly more in Tripoli region as compared to other regions.

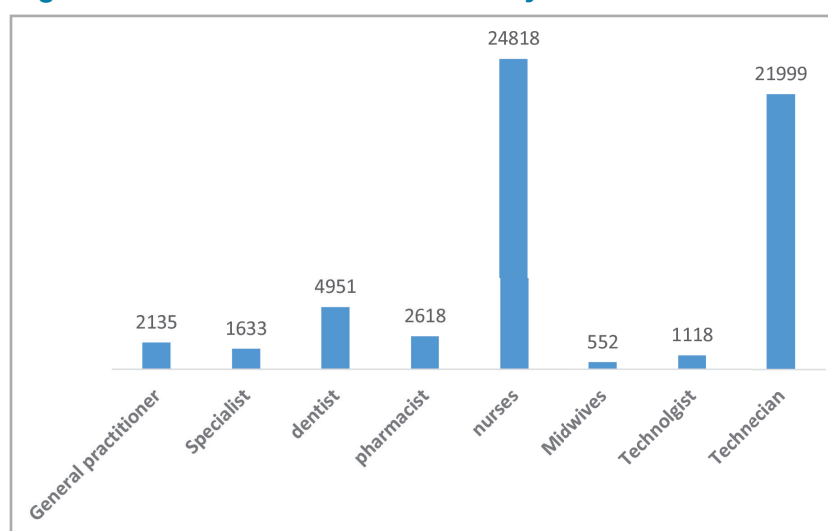
Figure 7 : Hospitals midwives gap by region



4.5 Human Resources : Primary Health Care Facilities :

Figure 8 shows the human resources in the primary health care facilities by specialty. At the time of survey, the total number of general practitioners were 2135 and total number of specialists were 1633. Overall there were 24818 nurses and 552 midwives working in primary health care facilities. The number of technicians and technologists were 21999 and 1118 respectively. A total of 4951 dentists and 2618 pharmacist also contribute to the workforce of primary health care facilities.

Figure 8 : Human Resources : Primary Health Care facilities



4.6 Core health worker density :

The core health workers include physicians (generalists and specialists), nurses and midwives. It includes only the public core health workers. The target is 23 core health workers per 10,000 population. The overall core health worker density in Libya was 76.33 core health workers per 10,000 population. The target of core health worker was fully achieved and was more than three times higher than the target value of 23 core health workers per 10,000 population.

Table 6 : Health workforce density by type of facility and region

Region	Hospitals		Primary Health Care		Total (Hospitals and PHCs)		Target achievement Score*
	N of Health workers	Health workers Density	N of Health workers	Health workers Density	N of Health workers	Health workers Density	
East	2709	32	5093	60	7802	91.72	100%
Benghazi	2790	28.06	2714	27	5504	55.36	100%
Central	1502	18	1318	16	2820	33.28	100%
South	1234	27.22	5493	121	6727	148.40	100%
Tripoli	7966	36	8985	41	16951	76.70	100%
West	3541	30.93	6272	55	9813	85.72	100%
Total	19742	30	29875	46	49617	76.33	100%

* The target is 23 health workers per 10000 population

Analysis by district shows that every district has achieved the target. In few districts the achieved value is more than 100. These districts include Tobraq, Al Jabal Gharbi, Wadia al Haya, Murzuk and Ghat.

5. General Service Availability :

General Service availability refers to the physical presence of health service delivery components and is computed as a density of health services per unit population.

Table 7 : General Service availability summary index by region

Region	Health Service Infrastructure Index				Health Workforce Index	Service Utilization Index			Service availability index Score*
	Facility Density	Inpatient Beds Density	Maternity Beds Density	Average Scores		Outpatient Visits per person/year	Hospitals admissions per 100/year	Average Scores	
East	100%	47%	100%	82%	100%	31%	100%	65%	82.6%
Benghazi	94%	52%	100%	82%	100%	37%	75%	56%	79.3%
Central	100%	54%	100%	85%	100%	43%	86%	65%	83.1%
South	100%	51%	100%	84%	100%	21%	57%	39%	74.3%
Tripoli	100%	71%	100%	90%	100%	41%	74%	57%	82.5%
West	100%	70%	100%	90%	100%	28%	67%	47%	79.1%
Total	100%	61%	100%	87%	100%	36%	78%	57%	81.2%

* Un-weighted average of the three areas: infrastructure, workforce, and services utilization

The overall general service availability index was 81.2% and it ranges from 74.3% to 83.1%. Core health worker density, maternity bed density and facility density were the best indicator of general service availability while outpatient density was the worst indicator for service availability.

6. General Service Readiness : Hospitals :

General Service readiness refers to the capacity of the health facilities to provide general health services. The indices used for general service readiness includes basic amenities, basic equipment, standard precautions, diagnostic and medicines.

Table 8 : General Service readiness for hospitals by region

	Basic amenities index	Basic equipment index	Standard precaution index	Diagnostics index	Medicine index	Overall index mean score
East	73.1%	69.0%	67.5%	60.2%	41.8%	62.3%
Benghazi	79.2%	86.7%	85.6%	68.6%	29.5%	69.9%
Central	78.6%	89.6%	84.7%	73.2%	40.6%	73.3%
South	71.4%	61.9%	65.1%	45.7%	39.2%	56.7%
Tripoli	82.0%	77.0%	79.9%	63.3%	53.6%	71.1%
West	76.8%	90.8%	77.8%	60.7%	47.3%	70.7%
Total	77.6%	80.2%	77.1%	62.6%	44.4%	68.4%

Overall the general service readiness index mean score for the public health hospitals was 68.4% which is significantly lower than the target. Further analysis shows that overall general service readiness mean score was less than the target in all regions and all districts.

General Service Readiness: Primary Health Care Facilities

Table 9 : General Service readiness for primary health care facilities by region

	Basic amenities index	Basic equipment index	Standard precaution index	Diagnostics index	Medicine index	Overall index mean score
East	32.0%	30.7%	47.9%	40.7%	59.1%	42.1%
Benghazi	41.6%	48.0%	65.5%	39.8%	17.5%	42.5%
Central	48.5%	51.7%	65.2%	37.4%	12.5%	43.1%
South	43.8%	38.4%	36.6%	45.8%	17.3%	36.4%
Tripoli	42.1%	53.4%	52.2%	31.5%	10.3%	37.9%
West	36.9%	37.5%	41.9%	34.3%	12.5%	32.6%
Total	39.8%	42.6%	48.9%	36.0%	16.4%	36.8%

SARA result shows that general service readiness index mean score for the public health primary health care facilities was 36.8% which is significantly lower than the target (100%). Further analysis shows that overall general service readiness mean score for PHCs was less than the target in all regions and all districts.

7. Service Specific availability and readiness :

7.1 Family Planning :

- **Availability :** None of the hospital, while only 18 (1.6%) of the public primary health facilities were providing family planning services. None of the facilities in south region were providing family planning services at all. Analysis by districts shows that only 7 (31.8%) out of 22 districts were providing family planning services.

Table 10 : Percentage of health facilities offering family planning services by type and region

Region	Hospitals			Primary Health Care			Total (Hospitals and PHCs)		
	N	%	Total N	N	%	Total N	N	%	Total N
East	0	0.0%	14	4	2.7%	148	4	2.5%	162
Benghazi	0	0.0%	10	1	1.1%	93	1	1.0%	103
Central	0	0.0%	8	1	1.0%	100	1	0.9%	108
South	0	0.0%	7	0	0.0%	158	0	0.0%	165
Tripoli	0	0.0%	21	8	2.8%	286	8	2.6%	307
West	0	0.0%	20	4	1.4%	286	4	1.3%	306
Total	0	0.0%	80	18	1.7%	1071	18	1.6%	1151

- **Readiness** : The overall index is calculated based on availability of functional equipment, medicines, availability of trained staff and guidelines. The overall readiness was 35.9% which is significantly lower than the target.

Table 11 : Readiness index for family planning services by region

Region	N of facilities providing FP	Equipment	Medicine	Training staff	Guidelines	Overall readiness
East	4	100.0%	0.0%	25.0%	25.0%	37.5%
Benghazi	1	100.0%	33.3%	50.0%	100.0%	70.8%
Central	1	100.0%	0.0%	0.0%	0.0%	25.0%
South	0					
Tripoli	8	100.0%	0.0%	18.8%	18.8%	34.4%
West	4	100.0%	0.0%	12.5%	12.5%	31.3%
Total	18	100.0%	1.9%	19.4%	22.2%	35.9%

7.2 Antenatal care Services :

- **Availability** : A total of 222 (19.3%) public health facilities were offering antenatal services. Out of the total, 83% primary health care facilities and 17% hospitals were offering antenatal care services.

Table 12 : Percentage of health facilities offering antenatal care services by type and region

	PHC		Hospitals		Total		
	N	%	N	%	N	%	Total facilities
East	17	9.2%	8	57.1%	25	15.5%	161
Benghazi	17	9.2%	2	20.0%	19	18.4%	103
Central	21	11.4%	6	75.0%	27	25.0%	108
South	18	9.8%	2	28.6%	20	12.1%	165
Tripoli	68	37.0%	8	38.1%	76	24.8%	307
West	43	23.4%	12	60.0%	55	18.0%	306
Total	184	100.0%	38	47.5%	222	19.3%	1150

- **Readiness of the primary health care facilities on antenatal care :** The overall index is calculated based on availability of five tracer items i.e. functional equipment, availability of medicines and diagnostics; and availability of trained staff and guidelines. The overall readiness of primary health care facilities on antenatal care was 39.6% which is significantly lower than the target.

Table 13 : ANC overall readiness index for PHC by region

	PHC						Overall ANC readiness index
	N of facilities offering ANC	Medicine	guidelines	trained staff	Equipment	Diagnos-tics	
East	17	32.4%	13.7%	5.9%	100.0%	41%	42.9%
Benghazi	17	14.7%	29.4%	23.5%	88.2%	59%	41.2%
Central	21	7.1%	11.1%	4.8%	90.5%	52%	36.0%
South	18	0.0%	9.3%	22.2%	94.4%	50%	30.2%
Tripoli	68	2.2%	18.1%	20.6%	98.5%	41%	39.1%
West	43	5.8%	41.9%	23.3%	95.3%	38%	42.4%
Total	184	7.3%	22.6%	18.5%	95.7%	44%	39.6%

- **Readiness of the public hospitals on antenatal care :** The overall index is calculated based on availability of six tracer items i.e. functional equipment, availability of medicines and diagnostics; and availability of trained staff and guidelines. The overall readiness of the public hospitals was 43.4% which is lower than the target.

Table 14 : Public hospitals readiness index for antenatal care services by region

	Hospitals						Overall ANC readiness index
	N of facilities offering ANC	Medicine	guidelines	trained staff	Equipment	Diagnosis	
East	8	56%	38%	29%	100%	62.5%	52.7%
Benghazi	2	50%	25%	0%	100%	50%	46.8%
Central	6	25%	0%	17%	100%	66.7%	38.8%
South	2	25%	0%	0%	100%	25%	35.0%
Tripoli	8	44%	31%	13%	100%	56.3%	45.7%
West	12	33%	13%	8%	100%	46%	38.5%
Total	38	39%	20%	14%	100%	53.9%	43.4%

7.3 Delivery services :

• **Availability** : Overall 69 (6%) of the public health facilities were providing delivery services. Out of total facilities offering delivery services, 52 were hospitals (75%) and 17 were primary health care facilities (25 %). In Tripoli region, the delivery services were not available at primary health care level while only one primary health care facility was providing delivery services in the west region. The availability of delivery services was observed more in the hospitals of south region (85.7 %) followed by west (75%) while it was least observed in Tripoli region (42.9%).

Table 15 : Percentage of health facilities offering delivery services by region

Region	Hospitals			Primary Health Care			Total (Hospitals and PHCs)		
	N	%	Total N	N	%	Total N	N	%	Total N
East	10	71.4%	14	3	2.00%	148	13	8.0%	162
Benghazi	7	70.0%	10	3	3.20%	93	10	9.7%	103
Central	5	62.5%	8	2	2.00%	100	7	6.5%	108
South	6	85.7%	7	8	5.10%	158	14	8.5%	165
Tripoli	9	42.9%	21	0	0.00%	286	9	2.9%	307
West	15	75.0%	20	1	0.30%	286	16	5.2%	306
Total	52	65.0%	80	17	1.60%	1071	69	6.0%	1151

7.3.1 Basic and comprehensive emergency obstetric care (BEmONC) in public health facilities. :

• **Availability :** Out of total 17 facilities which offer delivery services, only 1 facility in Benghazi region offer the basic EmONC services according to the seven signal functions. The comprehensive EmONC was not offered by any primary health care facilities. All the hospitals which offer delivery services provide basic EmONC services in all regions except central region where only 80% of the hospitals provide EmONC services. The comprehensive EmONC services were available in 82.7% of the hospitals.

Table 16 : Percentage of health facilities offering basic and comprehensive EmONC by region

	PHC		N of facilities offering delivery	Hospitals		N of facilities offering delivery
	Basic EmONC	Comprehensive EmONC		Basic EmONC	Comprehensive EmONC	
East	0.0%	0.0%	3	100.0%	60.0%	10
Benghazi	33.3%	0.0%	3	100.0%	71.4%	7
Central	0.0%	0.0%	2	80.0%	80.0%	5
South	0.0%	0.0%	8	100.0%	83.3%	6
Tripoli	0.0%	0.0%	0	100.0%	100.0%	9
West	0.0%	0.0%	1	100.0%	93.3%	15
Total	5.9%	0.0%	17	98.1%	82.7%	52

- **Readiness of the primary health care facilities on delivery :** The overall index is calculated based on availability of four tracer items i.e. functional equipment, availability of medicines and availability of trained staff and guidelines. The overall readiness of the primary health care facilities on delivery was 20 % which is significantly lower than the target.

Table 17 : Primary health care facilities readiness index for delivery services by region

	Equipment scores	Guidelines essential childbirth care	Trained staff	Medicine scores	Overall readiness scores	N of facilities offering delivery
East	29%	33%	0.0%	0%	16%	3
Benghazi	58%	33%	0.0%	13%	26%	3
Central	38%	0%	0.0%	0%	9%	2
South	53%	13%	25.0%	3%	23%	8
Tripoli	0%	0%	0.0%	0%	0%	0
West	25%	0%	0.0%	0%	6%	1
Total	46%	18%	11.8%	4%	20%	17

- **Readiness of the hospitals on delivery :** The overall index is calculated based on availability of four tracer items i.e. functional equipment, availability of medicines and availability of trained staff and guidelines. The overall readiness of the public hospitals on delivery was 54 % which is higher than PHCs but lower than the target.

Table 18 : Public hospitals readiness index for delivery services by region

	equipment scores	Guidelines essential childbirth care	Trained staff	Medicine scores	Overall readiness scores	N of facilities offering delivery
East	81%	60.0%	30.0%	74%	61%	10
Benghazi	73%	42.9%	14.3%	57%	47%	7
Central	90%	20.0%	60.0%	56%	57%	5
South	71%	33.3%	16.7%	40%	40%	6
Tripoli	78%	77.8%	55.6%	73%	71%	9
West	84%	13.3%	33.3%	61%	48%	15
Total	80%	40.4%	34.6%	62%	54%	52

7.3.2 Comprehensive emergency obstetric care (CEmONC) in hospitals. :

- **Availability** : Comprehensive EmONC services were available in 43 hospitals.

Table 19 : Percentage of hospitals offering comprehensive EmONC by region

	Hospitals		
	N	%	N total
East	6	42.9%	14
Benghazi	5	50.0%	10
Central	4	50.0%	8
South	5	71.4%	7
Tripoli	9	42.9%	21
West	14	70.0%	20
Total	43	53.8%	80

- **Readiness of the hospitals on comprehensive EmONC** : The overall index is calculated based on availability of seven tracer items i.e. functional equipment, availability of medicines, diagnostics; availability of anesthesiologist and trained surgeon, guidelines on basic and comprehensive EmONC guidelines. The overall readiness of the public hospitals on delivery was 55.2% which is lower than the target..

Table 20 : Public hospitals readiness index for comprehensive EmONC by region

	Guidelines for Basic Emergency Obstetric Care (BEmOC)	Guidelines for Comprehensive Emergency Obstetric Care (CEmOC)	Trained surgery worker	Trained Anesthesiologist	equipment scores	Diagnosis score	Medicines and commodities scores	Overall readiness scores	N of hospitals offering Comprehensive EMoNC
East	50.0%	20.0%	66.7%	50.0%	78.6%	75.0%	54.2%	56.3%	6
Benghazi	20.0%	20.0%	80.0%	60.0%	77.1%	50.0%	52.5%	51.4%	5
Central	25.0%	25.0%	75.0%	75.0%	89.3%	50.0%	81.3%	60.1%	4
South	20.0%	0.0%	40.0%	20.0%	77.1%	40.0%	37.5%	33.5%	5
Tripoli	77.8%	85.7%	66.7%	55.6%	76.2%	61.1%	51.4%	67.8%	9
West	14.3%	14.3%	71.4%	78.6%	86.7%	60.7%	58.9%	55.0%	14
Total	34.9%	28.2%	67.4%	60.5%	81.4%	58.1%	55.5%	55.2%	43

7.4 Immunization :

- **Availability of immunization services :** A total of 519 (45.1%) of the facilities offer immunization services. Out of the total facilities, 90% of the immunization services were offered by PHCs and 10% were provided by the hospitals. Only selected hospitals which provide delivery services offer the birth dose and oral polio vaccine.

Table 21 : Percentage of health facilities offering immunization services by type and region

	PHC		Hospitals		Total		Total facilities
	N	%	N	%	N	%	
East	62	42.2%	9	64.3%	71	44.1%	161
Benghazi	55	59.1%	7	70.0%	62	60.2%	103
Central	52	52.0%	6	75.0%	58	53.7%	108
South	74	46.8%	6	85.7%	80	48.5%	165
Tripoli	119	41.6%	9	42.9%	128	41.7%	307
West	105	36.7%	15	75.0%	120	39.2%	306
Total	467	43.6%	52	65.0%	519	45.1%	1150

- **Readiness of the primary health care facilities on immunization services :** The overall index is calculated based on availability of four tracer items i.e. functional equipment, availability of medicines, availability of guidelines and trainings on immunization. The overall readiness of the primary health care facilities on immunization services was 69%.

Table 22 : Primary health care facilities readiness index for immunization services by region

	Guidelines child immunization	Trained staff in immunization	equipment scores	Medicines and materials scores	Overall readiness	N of PHCs offering immunization
East	66%	72.6%	79%	68%	71%	62
Benghazi	75%	70.9%	85%	78%	77%	55
Central	46%	80.8%	85%	53%	66%	52
South	31%	64.9%	73%	84%	63%	74
Tripoli	65%	79.8%	92%	61%	75%	119
West	51%	37.1%	82%	79%	62%	105
Total	56%	66.0%	84%	71%	69%	467

7.5 Child preventive and curative care services :

Availability of child preventive and curative services : Overall 386 (33.6%) facilities were offering preventive and curative care services for children under 5 years of age. Out of total facilities offering the services, 85% were PHCs and 15% were hospitals. Result shows that overall the preventive and curative care services for children under 5 were frequently observed in Benghazi region (44.7%) followed by Tripoli region (40.4%) while in south region the services were least observed (14.5%).

Table 23 : Percentage of health facilities offering preventive and curative care services for children by type and region

	PHC		Hospitals		Total		
	N	%	N	%	N	%	Total facilities
East	53	36.3%	10	71.4%	63	39.1%	161
Benghazi	38	40.9%	8	80.0%	46	44.7%	103
Central	28	28.0%	5	62.5%	33	30.6%	108
South	18	11.4%	6	85.7%	24	14.5%	165
Tripoli	113	39.5%	11	52.4%	124	40.4%	307
West	77	26.9%	19	95.0%	96	31.4%	306
Total	327	30.6%	59	73.8%	386	33.6%	1150

7.5.1 Number of wards for maternal and child health in the hospitals. :

Table 24 shows the number of wards in the hospitals related to mothers, newborn and children. Result shows that there were 69 pediatric wards, 38 obstetric/maternity wards and 47 combined obstetrics/gynecology wards. In addition there were 33 newborn wards and 7 neonatal intensive care units (ICU).

Table 24 : Number of wards in the hospitals offering mother and child health services by region

	pediatric wards	obstetric/maternity wards	combined obstetric(delivery)/gynecology wards	newborn wards	Neonatal intensive care unit (ICU)
East	8	5	6	4	1
Benghazi	15	4	5	3	2
Central	6	3	6	3	1
South	4	5	3	3	0
Tripoli	20	18	11	9	3
West	16	3	16	11	0
Total	69	38	47	33	7

Result shows that pediatric wards were more in Tripoli followed by west region. Similarly the obstetric/maternity wards separately or combined were significantly more in Tripoli region as compared to other regions.

7.5.2 Number of beds for mother and children :

Table 25 shows the number of beds in the wards for mother and children. Result shows that there were 1421 beds in pediatric ward, 870 beds in obstetric/maternity wards and 1029 beds in combined obstetrics/gynecology ward. The number of total beds in newborn wards were 408 and only 66 beds were available for neonate in neonatal intensive care units.

Table 25 : Number of beds in the hospitals offering mother and child health services by region

	N of beds in pediatric wards	N of beds in obstetric/maternity wards	N of beds in combined obstetric(delivery)/gynecology wards	N of beds in newborn wards	N of beds in Neonatal intensive care unit (ICU)
East	231	168	149	38	10
Benghazi	322	98	86	47	20
Central	150	72	165	35	6
South	78	51	68	44	0
Tripoli	370	363	246	131	30
West	270	118	315	113	0
Total	1421	870	1029	408	66

Results by region shows that Tripoli region had the highest number of beds (26%) in pediatrics wards while south region had only 78 beds in the pediatric wards (5%). The number of beds in gynecology/maternity wards were also significantly high in Tripoli region as compared to others. There was no neonatal intensive care unit in south and west region.

- **Readiness of the primary health care facilities on child preventive and curative services:** The overall index is calculated based on availability of five tracer items i.e. functional equipment, availability of medicines, diagnostics and availability of guidelines and trainings on immunization. The overall readiness of the primary health care facilities on child preventive and curative services was 35%.

Table 26 : Primary health care facilities readiness index for preventive and curative care services for children by region

	Trained staff scores	Guidelines scores	Equipment scores	Diagnosis scores	Medicines scores	Overall readiness scores	N of PHCs offering service
East	5%	12%	61%	63%	77%	43%	53
Benghazi	0%	3%	57%	77%	29%	33%	38
Central	2%	7%	65%	71%	15%	32%	28
South	8%	3%	64%	80%	14%	34%	18
Tripoli	4%	7%	69%	70%	7%	31%	113
West	14%	39%	67%	79%	11%	42%	77
Total	6%	14%	65%	73%	17%	35%	327

8. Communicable Diseases :

8.1 Tuberculosis :

- **Availability of TB services :** A total of 22 (95.7%) facilities offer diagnosis of tuberculosis services. All the facilities which provide TB services were the branches of National Center for Disease Control (NCDC).

Table 27 : Percentage of health facilities offering management of TB services by type and region

	N	%	N total
East	4	100%	4
Benghazi	2	100%	2
Central	4	100%	4
South	2	100%	2
Tripoli	4	100%	4
West	7	100%	7
Total	23	100%	23

- **Readiness of the primary health care facilities on TB services :** The overall index is calculated based on availability of four tracer items i.e., availability of medicines, availability of guidelines and trainings and diagnostics. The overall readiness of the primary health care facilities on tuberculosis was 44 %.

Table 28 : Primary health care facilities readiness index for management of TB services by region

	Guidelines scores	Trained staff scores	Diagnosis scores	Medicines scores	Overall readiness scores	N of facilities offering TB
East	63%	63%	33%	0%	40%	4
Benghazi	75%	63%	33%	0%	43%	2
Central	44%	63%	42%	0%	37%	4
South	75%	50%	50%	0%	44%	2
Tripoli	56%	69%	33%	11%	42%	4
West	75%	79%	48%	0%	50%	7
Total	64%	67%	41%	2%	44%	23

8.2 Prevention of mother to child transmission (PMTCT) :

- **Availability of PMTCT services :** Only 4 (5%) hospitals offer PMTCT services. Two hospitals which offer PMTCT services were in Tripoli and one each was in East and Benghazi region.

Table 29 : Percentage of health facilities offering prevention of mother to child transmission services by type and region

	PHCs			Hospitals		
	N	%	N totals	N	%	N totals
East	0	0.0%	146	1	7%	14
Benghazi	0	0.0%	93	1	10%	10
Central	0	0.0%	100	0	0%	8
South	0	0.0%	158	0	0%	7
Tripoli	0	0.0%	286	2	10%	21
West	0	0.0%	286	0	0%	20
Total	0	0.0%	1069	4	5%	80

- **Readiness of the hospitals on PMTCT services :** The overall index is calculated based on availability of five tracer items i.e. functional equipment, diagnostics, availability of medicines, availability of guidelines and trainings on PMTCT. The overall readiness of the hospitals on PMTCT services was 37%.

Table 30 : Public hospitals readiness index for prevention of mother to child transmission services by region

	Overall guidelines scores	Overall training scores	Overall diagnosis	Equipment (Visual and auditory privacy)	overall medicines	Overall readiness	N of facilities offering PMTCT
East	50%	50%	50%	100%	0%	50%	1
Benghazi	0%	0%	0%	100%	13%	23%	1
Central							0
South							0
Tripoli	0%	0%	50%	100%	25%	35%	2
West							0
Total	13%	13%	38%	100%	21%	37%	4

8.3 HIV counselling and testing :

- **Availability of HIV counselling and testing services :** A total of 8 (1%) facilities reported to offer HIV counselling and testing services. Out of the total facilities offering counselling services, 3 were PHCs and 5 were hospitals. The availability of HIV counselling and testing services was not reported from any facilities of central and south region.

Table 31 : Percentage of health facilities offering HIV counselling and testing services by type and region

	PHCs			Hospitals			Total		
	N	%	N total	N	%	Total N	N	%	Total N
East	1	.7%	146	1	7.1%	14	2	1%	160
Benghazi	1	1.1%	93	1	10.0%	10	2	2%	103
Central	0	0.0%	100	0	0.0%	8	0	0%	108
South	0	0.0%	158	0	0.0%	7	0	0%	165
Tripoli	0	0.0%	286	3	14.3%	21	3	1%	307
West	1	.3%	286	0	0.0%	20	1	0%	306
Total	3	.3%	1069	5	6.3%	80	8	1%	1149

Readiness :

- **Readiness of the primary health care facilities on HIV counselling services :** The overall index is calculated based on availability of five tracer items i.e. rapid test kit, availability of guidelines and trainings on HIV counselling and testing services, availability of condoms and room with auditory and visual privacy. The overall readiness of the hospitals on HIV counselling and testing services was 46.7%.

Table 32 : Primary health care facilities readiness index for HIV counselling and testing services by region

	Guidelines HIV counselling and testing	Staff trained HIV counselling and testing	Room with auditory/visual privacy for HIV	HIV rapid test kit available	Condoms in service site	Overall readiness scores	N
East	100.0%	0.0%	0.0%	0.0%	0.0%	20.0%	1
Benghazi	100.0%	0.0%	0.0%	100.0%	0.0%	40.0%	1
Central							0
South							0
Tripoli							0
West	100.0%	0.0%	100.0%	100.0%	0.0%	60.0%	1
Total	100.0%	0.0%	33.3%	100.0%	0.0%	46.7%	3

- **Readiness of the hospitals on HIV counselling services :** The overall index is calculated based on availability of five tracer items i.e. rapid test kit, availability of guidelines and trainings on HIV counselling and testing services, availability of condoms and room with auditory and visual privacy. The overall readiness of the hospitals on HIV counselling and testing services was 32.0%.

Table 33 : Public hospitals readiness index for HIV counselling and testing services by region

	Guidelines HIV counselling and testing	Staff trained HIV counselling and testing	Room with auditory/visual privacy for HIV	HIV rapid test kit	Condoms in service site	Overall readiness scores	N of hospitals offering service
East	100.0%	0.0%	100.0%	100.0%	0.0%	60.0%	1
Benghazi	0.0%	0.0%	0.0%	100.0%	0.0%	20.0%	1
Central							0
South							0
Tripoli	33.3%	0.0%	33.3%	66.7%	0.0%	26.7%	3
West							0
Total	40.0%	0.0%	40.0%	80.0%	0.0%	32.0%	5

8.4 Sexually Transmitted Infections :

- **Availability of treatment for sexually transmitted infections :** A total of 15 public health facilities were offering treatment for STIs. Out of the total facilities offering services for STIs, 6 were PHCs and 9 were hospitals.

Table 34 : Percentage of health facilities offering management of sexually transmitted infections services by type and region

	PHCs			Hospitals			Total		
	N	%	N total	N	%	N total	N	%	Total N
East	0	0.0%	146	1	7.1%	14	1	1%	160
Benghazi	1	1.1%	93	1	10.0%	10	2	2%	103
Central	0	0.0%	100	0	0.0%	8	0	0%	108
South	0	0.0%	158	2	28.6%	7	2	1%	165
Tripoli	0	0.0%	286	5	23.8%	21	5	2%	307
West	5	1.7%	286	0	0.0%	20	5	2%	306
Total	6	.6%	1069	9	11.3%	80	15	1%	1149

- **Readiness of the primary health care facilities on sexually transmitted infections :**

The overall index is calculated based on availability of four tracer items i.e. availability of medicines, diagnostic capacity and availability of guidelines and trainings on sexually transmitted infections. The overall readiness of the primary health care facilities on sexually transmitted infections was 33.3%.

Table 35 : Primary health care facilities readiness index for management of sexually transmitted infections services by type and region

	Guidelines Scores	Staff trained Scores	Diagnosis Scores (Rapid syphilis testing)	Medicine scores	Overall readiness scores	N of facilities offering STI
East						0
Benghazi	100.0%	0.0%	100.0%	0.0%	50.0%	1
Central						0
South						0
Tripoli						0
West	60.0%	20.0%	25.0%	10.0%	28.8%	5
Total	66.7%	16.7%	40.0%	10.0%	33.3%	6

- **Readiness of the hospitals on sexually transmitted infections :** The overall index is calculated based on availability of four tracer items i.e. availability of medicines, diagnostic capacity and availability of guidelines and trainings on sexually transmitted infections. The overall readiness of the hospitals on sexually transmitted infections was 28.5%.

Table 36 : Public hospitals readiness index for management of sexually transmitted infections services by region

	Guidelines STI diagnosis and treatment	Staff trained STI diagnosis and treatment	Diagnosis Scores (Rapid syphilis testing)	Medicine scores	Overall readiness scores	N of facilities offering STI
East	100.0%	0.0%	0.0%	25.0%	31.3%	1
Benghazi	0.0%	0.0%	0.0%	25.0%	6.3%	1
Central						0
South	0.0%	0.0%	0.0%	50.0%	12.5%	2
Tripoli	60.0%	0.0%	40.0%	55.0%	38.8%	5
West	0.0%	0.0%				0
Total	44.4%	0.0%	22.2%	47.2%	28.5%	9

9. Non Communicable Diseases :

9.1 Diabetes :

Availability of diabetes diagnosis and management services : A total of 605 (52.7%) of the facilities offer diabetes diagnosis and management services. Out of the total facilities, 91% of the diabetes diagnosis and management services were offered by PHCs and 9 % were offered by the hospitals.

Table 37 : Percentage of health facilities offering diabetes diagnosis and management services by type and region

	PHCs			Hospitals			Total		
	N	%	N totals	N	%	N total	N	%	N totals
East	90	61.6%	146	10	71.4%	14	100	62.5%	160
Benghazi	56	60.2%	93	4	40.0%	10	60	58.3%	103
Central	55	55.0%	100	7	87.5%	8	62	57.4%	108
South	65	41.1%	158	2	28.6%	7	67	40.6%	165
Tripoli	162	56.6%	286	17	81.0%	21	179	58.3%	307
West	122	42.7%	286	15	75.0%	20	137	44.8%	306
Total	550	51.4%	1069	55	68.8%	80	605	52.7%	1149

Readiness :

• **Readiness of the primary health care facilities on diabetes diagnosis and management services :** The overall index is calculated based on availability of five tracer items i.e. functional equipment, diagnostics, availability of medicines, availability of guidelines and trainings on immunization. The overall readiness of the primary health care facilities diabetes diagnosis and management services was 40 %.

Table 38 : Primary health care facilities readiness index for diabetes diagnosis and management services by type and region

	Guidelines diabetes diagnosis/management	Staff trained diabetes diagnosis/management	equipment scores	diagnosis scores	medicine index	Overall readiness scores	N of facilities offering service
East	83%	4.4%	57.8%	16.3%	13.1%	35.0%	90
Benghazi	95%	3.6%	78.6%	44.0%	7.9%	45.7%	56
Central	55%	5.5%	76.4%	51.5%	4.0%	38.4%	55
South	91%	0.0%	73.1%	22.1%	4.9%	38.2%	65
Tripoli	75%	13.6%	80.2%	39.7%	7.4%	43.1%	162
West	82%	16.4%	66.0%	23.2%	4.6%	38.4%	122
Total	80%	9.3%	72.0%	31.8%	7.1%	40.0%	550

9.2 Cardiovascular diseases :

Availability of offering diagnosis and/or management of cardiovascular diseases services:

A total of 565 (49.2%) of the facilities offer offering diagnosis and/or management of cardiovascular diseases services. Out of the total facilities, 90 % the PHCs provided the diagnosis and/or management of cardiovascular diseases services while hospitals offered 10% of services.

Table 39 : Percentage of health facilities offering management of cardiovascular disease services by type and region

	PHCs			Hospitals			Total		
	N	%	N totals	N	%	N totals	N	%	N totals
East	89	61.0%	146	9	64.3%	14	98	61.3%	160
Benghazi	55	59.1%	93	5	50.0%	10	60	58.3%	103
Central	51	51.0%	100	7	87.5%	8	58	53.7%	108
South	64	40.5%	158	3	42.9%	7	67	40.6%	165
Tripoli	137	47.9%	286	16	76.2%	21	153	49.8%	307
West	114	39.9%	286	15	75.0%	20	129	42.2%	306
Total	510	47.7%	1069	55	68.8%	80	565	49.2%	1149

- **Readiness of the primary health care facilities on CVS diagnosis and management services** : The overall index is calculated based on availability of four tracer items i.e. functional equipment, availability of medicines, availability of guidelines and trainings on diagnosis and/or management of cardiovascular diseases. The overall readiness of the primary health care facilities on diagnosis and/or management of cardiovascular diseases services was 24 %.

Table 40 : Primary health care facilities readiness index for management of cardiovascular disease services by type and region

	Guidelines cardiovascular disease diagnosis/management	Staff trained cardiovascular disease diagnosis/management	Equipment scores	Medicine scores	Overall readiness	N of facilities offering services
East	6.7%	2.2%	68.5%	10.9%	22.1%	89
Benghazi	3.6%	0.0%	75.2%	3.0%	20.5%	55
Central	3.9%	9.8%	92.2%	6.2%	28.0%	51
South	1.6%	0.0%	70.8%	0.8%	18.3%	64
Tripoli	1.5%	9.5%	84.4%	2.6%	24.5%	137
West	21.1%	10.5%	77.2%	3.5%	28.1%	114
Total	7.3%	6.3%	78.1%	4.4%	24.0%	510

Readiness :

- **Readiness of the hospitals on offering diagnosis and/or management of cardiovascular diseases services** : The overall index is calculated based on availability of four tracer items i.e. functional equipment, availability of medicines, availability of guidelines and trainings on diagnosis and/or management of cardiovascular diseases services. The overall readiness of the hospitals offering diagnosis and/or management of cardiovascular diseases services was 42 %.

Table 41 : Public hospitals readiness index for management of cardiovascular disease services by region

	Guidelines cardiovascular disease diagnosis/management	Staff trained cardiovascular disease diagnosis/management	Equipment scores	Medicine scores	Overall readiness	N of facilities offering services
East	33%	33%	96%	56%	55%	9
Benghazi	0%	20%	100%	10%	33%	5
Central	0%	0%	86%	38%	31%	7
South	0%	0%	89%	44%	33%	3
Tripoli	31%	31%	75%	55%	48%	16
West	0%	20%	91%	47%	39%	15
Total	15%	22%	87%	46%	42%	55

9.3 Chronic respiratory diseases :

Availability of diagnosis/management chronic respiratory disease services: A total of 523 (45.5%) of the facilities offer services on diagnosis/management chronic respiratory disease services. Out of the total facilities, 91% of the diagnosis/management chronic respiratory disease services were offered by PHCs and 9% were offered by the hospitals.

Table 42 : Percentage of health facilities offering management of chronic respiratory diseases services by type and region

	PHCs			Hospitals			Total		
	N	%	N totals	Count	%	N totals	Count	%	N totals
East	76	52.1%	146	9	64.3%	14	85	53.1%	160
Benghazi	49	52.7%	93	3	30.0%	10	52	50.5%	103
Central	49	49.0%	100	6	75.0%	8	55	50.9%	108
South	61	38.6%	158	2	28.6%	7	63	38.2%	165
Tripoli	132	46.2%	286	13	61.9%	21	145	47.2%	307
West	111	38.8%	286	12	60.0%	20	123	40.2%	306
Total	478	44.7%	1069	45	56.3%	80	523	45.5%	1149

Readiness :

• **Readiness of the primary health care facilities on diagnosis/management chronic respiratory disease services :** The overall index is calculated based on availability of four tracer items i.e. functional equipment, availability of medicines, availability of guidelines and trainings on immunization. The overall readiness of the primary health care facilities on diagnosis/management of chronic respiratory diseases was 18.2 .

Table 43 : Primary health care facilities readiness index for management of chronic respiratory diseases services by type and region

	Guidelines chronic respiratory disease diagnosis/management	Staff trained chronic respiratory disease diagnosis/management	Equipment scores	Medicines scores	Overall readiness score	N of facilities offering service
East	1.3%	1.3%	43.9%	50.8%	24.3%	76
Benghazi	0.0%	0.0%	46.9%	18.4%	16.3%	49
Central	6.1%	2.0%	62.6%	8.9%	19.9%	49
South	0.0%	0.0%	45.4%	20.0%	16.3%	61
Tripoli	0.8%	3.0%	53.8%	6.8%	16.1%	132
West	22.5%	11.7%	47.1%	10.0%	22.8%	111
Total	6.3%	4.0%	49.8%	12.9%	18.2%	478

• **Readiness of the hospitals on offering diagnosis and/or management of cardiovascular diseases services:** The overall index is calculated based on availability of four tracer items i.e. functional equipment, availability of medicines, availability of guidelines and trainings on diagnosis and/or management of cardiovascular diseases services. The overall readiness of the hospitals offering diagnosis and/or management of cardiovascular diseases services was 42%.

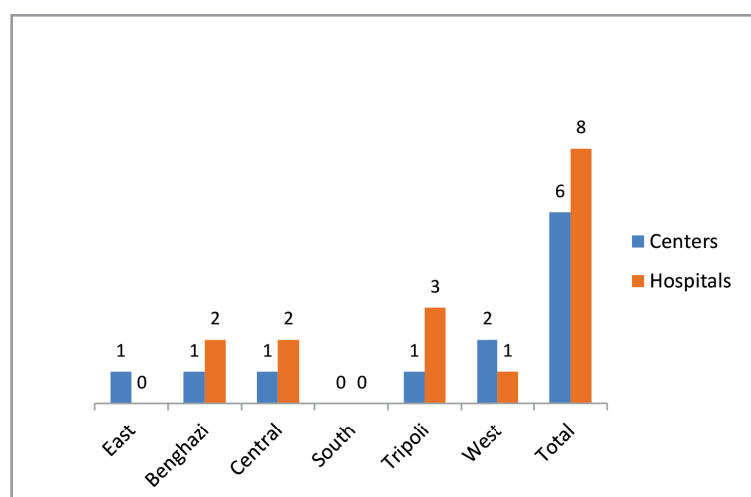
Table 44 : Public hospitals readiness index for management of chronic respiratory diseases services by region

	Guidelines chronic respiratory disease diagnosis/management	Staff trained chronic respiratory disease diagnosis/management	Equipment scores	Medicines scores	Overall readiness score	N of facilities offering service
East	44.4%	33.3%	63.0%	40.0%	45.2%	9
Benghazi	0.0%	66.7%	88.9%	53.3%	52.2%	3
Central	0.0%	0.0%	55.6%	80.0%	33.9%	6
South	0.0%	0.0%	66.7%	30.0%	24.2%	2
Tripoli	38.5%	30.8%	61.5%	53.8%	46.2%	13
West	0.0%	8.3%	66.7%	55.0%	32.5%	12
Total	20.0%	22.2%	64.4%	53.8%	40.1%	45

9.4 Availability of mental health services :

Figure 9 shows the availability of mental health services in Libya. Overall 8 hospitals and 6 other facilities are providing mental health services. The mental health services were not offered in South Region.

Figure 9 : Number of Health facilities offering maternal health service



9.5 Cervical cancer screening :

- **Availability of cancer screening services :** A total of 44(3.8%) facilities offer cancer screening services. Out of the total facilities, 77.2 % of the cancer screening services were offered by PHCs and 22.8 % were offered by the hospitals.

Table 45 : Percentage of health facilities offering diagnosis of cervical cancer services by type and region

	PHCs			Hospitals			Total		
	N	%	N totals	Count	%	N totals	Count	%	N totals
East	8	5.5%	146	2	14.3%	14	10	6.3%	160
Benghazi	4	4.3%	93	1	10.0%	10	5	4.9%	103
Central	4	4.0%	100	1	12.5%	8	5	4.6%	108
South	3	1.9%	158	0	0.0%	7	3	1.8%	165
Tripoli	9	3.1%	286	5	23.8%	21	14	4.6%	307
West	6	2.1%	286	1	5.0%	20	7	2.3%	306
Total	34	3.2%	1069	10	12.5%	80	44	3.8%	1149

- **Readiness of the primary health care facilities on cervical cancer screening services :** The overall index is calculated based on availability of four tracer items i.e. functional equipment, availability of diagnostics, availability of guidelines and trainings on cancer screening. The overall readiness of the primary health care facilities on cervical cancer screening services was 27.9 %.

Table 46 : Primary health care facilities readiness index for diagnosis of cervical cancer by region

	Guidelines cervical cancer prevention and control	Staff trained cervical cancer prevention and control	Diagnosis (Acetic acid)	Equipment (Speculum)	Overall readiness scores	N of facilities offering services
East	12.5%	12.5%	87.5%	12.5%	31.3%	8
Benghazi	25.0%	25.0%	75.0%	0.0%	31.3%	4
Central	0.0%	0.0%	100.0%	0.0%	25.0%	4
South	0.0%	0.0%	100.0%	0.0%	25.0%	3
Tripoli	0.0%	0.0%	88.9%	0.0%	22.2%	9
West	66.7%	50.0%	16.7%	0.0%	33.3%	6
Total	17.6%	14.7%	76.5%	2.9%	27.9%	34

- **Readiness of the hospitals on cervical cancer screening services :** The overall index is calculated based on availability of four tracer items i.e. functional equipment, availability of diagnostics, availability of guidelines and trainings on cervical cancer screening. The overall readiness of the hospitals on cervical cancer screening services was 45%.

Table 47 : Public hospitals readiness index for management of diagnosis of cervical cancer services by region

	Guidelines cervical cancer prevention and control	Staff trained cervical cancer prevention and control	Diagnosis (Acetic acid)	Equipment (Speculum)	Overall readiness scores	N of facilities offering services
East	50.0%	0.0%	50.0%	100.0%	50.0%	2
Benghazi	100.0%	0.0%	0.0%	0.0%	25.0%	1
Central	0.0%	100.0%	0.0%	100.0%	50.0%	1
South						0
Tripoli	40.0%	40.0%	20.0%	80.0%	45.0%	5
West	0.0%	100.0%	100.0%	0.0%	50.0%	1
Total	40.0%	40.0%	30.0%	70.0%	45.0%	10

10 Surgery and Blood Transfusion :

10.1 Minor Surgery :

- **Availability of minor surgical services :** A total of 244 (21 %) facilities offer minor surgical services. Out of the total facilities, 70 % of the minor surgical services were offered by PHCs and 30% were offered by the hospitals.

Table 48 : Percentage of health facilities offering minor surgical services by type and region

	PHC			Hospitals			Total		
	N	%	N total	N	%	N total	N	%	N total
East	17	11.6%	146	12	85.7%	14	29	18%	160
Benghazi	19	20.4%	93	9	90.0%	10	28	27%	103
Central	30	30.0%	100	8	100.0%	8	38	35%	108
South	25	15.8%	158	7	100.0%	7	32	19%	165
Tripoli	38	13.3%	286	16	76.2%	21	54	18%	307
West	43	15.0%	286	20	100.0%	20	63	21%	306
Total	172	16.1%	1069	72	90.0%	80	244	21%	1149

- **Readiness of the primary health care facilities on minor surgical services** : The overall index is calculated based on availability of four tracer items i.e. functional equipment, availability of medicines, availability of guidelines and trainings on minor surgical services. The overall readiness of the primary health care facilities on minor surgical services was 24 %.

Table 49 : Primary health care facilities readiness index for minor surgical services and region

	Guidelines IMEESC	Staff trained IMEESC	Equipment scores	Medicines scores	Overall readiness scores	N of PHCs offering minor surgery
East	0.0%	0.0%	41.2%	57.4%	25%	17
Benghazi	5.3%	5.3%	42.8%	77.6%	33%	19
Central	10.0%	6.7%	42.1%	30.8%	22%	30
South	20.0%	8.0%	41.5%	44.0%	28%	25
Tripoli	2.6%	10.5%	42.4%	23.7%	20%	38
West	4.7%	2.3%	43.3%	41.9%	23%	43
Total	7.0%	5.8%	42.4%	41.7%	24%	172

- **Readiness of the hospitals on minor surgical services** : The overall index is calculated based on availability of four tracer items i.e. functional equipment, availability of medicines, availability of guidelines and trainings on minor surgical services. The overall readiness of the hospitals on minor surgical services was 32.3 %.

Table 50 : Public hospitals readiness index for minor surgical services by region

	Guidelines on IMEESC	Training on IMEESC	Equipment scores	Medicine scores	Overall readiness scores	N of hospitals offering minor surgery
East	16.7%	0.0%	59.3%	35.4%	27.8%	12
Benghazi	22.2%	22.2%	71.6%	61.1%	44.3%	9
Central	12.5%	0.0%	72.2%	56.3%	35.2%	8
South	14.3%	0.0%	49.2%	12.5%	19.0%	7
Tripoli	18.8%	12.5%	53.5%	48.4%	33.3%	16
West	0.0%	0.0%	71.1%	56.3%	31.8%	20
Total	12.5%	5.6%	63.3%	47.9%	32.3%	72

10.2 Major Surgery :

- **Availability of major surgery services :** A total of 47 (58.8%) of the hospitals offer major surgery services. Majority of the hospitals of west region offer major surgery services (75%) while the services were least observed in south region (42.9%).

Table 51 : Percentage of hospitals offering major surgical services by region

	Hospitals		
	N	%	N total
East	6	42.9%	14
Benghazi	6	60.0%	10
Central	4	50.0%	8
South	3	42.9%	7
Tripoli	13	61.9%	21
West	15	75.0%	20
Total	47	58.8%	80

- **Readiness of the hospitals on major surgery services :** The overall index is calculated based on availability of six tracer items i.e. functional equipment, availability of medicines, availability of guidelines and trainings on major surgery services, availability of 24 hour staff trained in surgery and anesthesia. The overall readiness of the hospitals on major surgery services was 52 %.

Table 52 : Public hospitals readiness index for major surgical services by region

	Guidelines IMEESC	Training in IMEESC in the last two years	24 hours Staff trained in general surgery	24 hours Staff trained in anesthesia	Equipment scores	medicine scores	Overall readiness scores	N of hospitals offering major surgery
East	33%	0.0%	100.0%	66.7%	67%	39%	51%	6
Benghazi	33%	33.3%	100.0%	100.0%	79%	61%	68%	6
Central	25%	0.0%	100.0%	100.0%	69%	83%	63%	4
South	33%	0.0%	66.7%	33.3%	75%	11%	37%	3
Tripoli	23%	15.4%	84.6%	92.3%	56%	50%	53%	13
West	0%	0.0%	73.3%	80.0%	65%	53%	45%	15
Total	19%	8.5%	85.1%	83.0%	65%	51%	52%	47

11. Blood transfusion :

Availability of blood transfusion services : A total of 57 (5.0%) of the facilities reported to offer blood transfusion services. Out of the total facilities, 7 % of the blood transfusion services were offered by PHCs and 93 % were offered by the hospitals.

Table 53 : Percentage of health facilities offering blood transfusion services by type and region

	PHC			Hospitals			Total		
	Blood transfusion			Blood transfusion			Blood transfusion		
	N	%	Total	N	%	Total	N	%	Total
East	0	0.0%	145	7	50.0%	14	7	4.4%	159
Benghazi	0	0.0%	93	7	70.0%	10	7	6.8%	103
Central	1	1.0%	100	5	62.5%	8	6	5.6%	108
South	1	0.6%	158	5	71.4%	7	6	3.6%	165
Tripoli	0	0.0%	286	14	66.7%	21	14	4.6%	307
West	2	0.7%	286	15	75.0%	20	17	5.6%	306
Total	4	0.4%	1068	53	66.3%	80	57	5.0%	1148

Readiness :

• **Readiness of the primary health care facilities on blood transfusion services :** The overall index is calculated based on availability of five tracer items i.e. functional equipment, availability of medicines, diagnostics and availability of guidelines and trainings on blood transfusion. The overall readiness of the primary health care facilities on blood transfusion services was 35%.

Table 54 : Primary health care facilities readiness index for blood transfusion services by region

	Guidelines safe blood transfusion practices scores	Staff trained safe blood transfusion practices scores	Equipment (Refrigerator) scores	Overall Diagnosis scores	Overall medicine scores	Overall scores	N of facilities offering blood transfusion
East							0
Benghazi							0
Central	0.0%	0.0%	0.0%	80%	0.0%	16.0%	1
South	100.0%	100.0%	100.0%	0%	50.0%	70.0%	1
Tripoli							0
West	0.0%	0.0%	50.0%	60%	25.0%	27.0%	2
Total	25.0%	25.0%	50.0%	50%	25.0%	35.0%	4

- **Readiness of the hospitals on blood transfusion services :** The overall index is calculated based on availability of five tracer items i.e. functional equipment, availability of medicines, diagnostics and availability of guidelines and trainings on blood transfusion. The overall readiness of the hospitals on blood transfusion services was 60 %.

Table 55 : Public hospitals readiness index for blood transfusion services by region

	Guidelines safe blood transfusion practices scores	Staff trained safe blood transfusion practices scores	Equipment (Refrigerator) scores	Overall Diagnosis scores	Overall medicine scores	Overall scores	N of facilities offering blood transfusion
East	42.9%	28.6%	100.0%	66%	78.6%	63.1%	7
Benghazi	42.9%	28.6%	100.0%	46%	71.4%	57.7%	7
Central	60.0%	40.0%	100.0%	56%	70.0%	65.2%	5
South	40.0%	40.0%	80.0%	20%	50.0%	46.0%	5
Tripoli	78.6%	21.4%	100.0%	53%	64.3%	63.4%	14
West	33.3%	33.3%	100.0%	53%	76.7%	59.3%	15
Total	50.9%	30.2%	98.1%	51%	69.8%	60.0%	53

12. Emergency Services :

- **Availability of emergency services :** A total of 67 hospitals (83.8%) were offering emergency services. Out of the total facilities, 76.1% facilities reported to have special emergency room or service area while 23.9% of the hospitals offer emergency services in same setting as non-emergency outpatient service area.

Table 56 : Percentage of health facilities offering emergency services by type and region

	Facility ever provide any emergency services			Setting for emergency services			N Offering emergency
	N	%	N Total	Yes, special emergency room or service area	Yes, offered in same service settings as non-emergency outpatient services	Yes, other	
East	11	78.6%	14	63.6%	27.3%	9.1%	11
Benghazi	8	80.0%	10	87.5%	12.5%	0.0%	8
Central	6	75.0%	8	100.0%	0.0%	0.0%	6
South	6	85.7%	7	66.7%	33.3%	0.0%	6
Tripoli	17	81.0%	21	76.5%	23.5%	0.0%	17
West	19	95.0%	20	73.7%	26.3%	0.0%	19
Total	67	83.8%	80	76.1%	22.4%	1.5%	67

- **Readiness of the hospitals on emergency services :** The overall index is calculated based on availability of six tracer items i.e. functional equipment, diagnostics, availability of medicines, availability of guidelines and trainings on emergency services. The overall readiness of the hospitals on emergency services was 47.1%.

Table 57 : Public hospitals readiness index for emergency services by region

	Guidelines on caring for the emergency patient	Training in emergency services in the last two years	Diagnostics scores	Medicines scores	Equipment scores	overall 24-hours staff	Overall readiness score	N of hospitals offering emergency
East	36%	0.0%	27.3%	71.6%	60.4%	75%	45.1%	11
Benghazi	38%	50.0%	64.3%	60.9%	76.8%	77%	61.0%	8
Central	17%	33.3%	59.5%	66.7%	76.2%	85%	56.3%	6
South	0%	16.7%	38.1%	60.4%	48.8%	69%	38.8%	6
Tripoli	29%	17.6%	30.3%	66.2%	51.3%	75%	45.0%	17
West	5%	10.5%	39.1%	69.1%	72.2%	68%	44.1%	19
Total	21%	17.9%	39.7%	66.8%	63.8%	74%	47.1%	67

13. Availability of Imaging :

- **Availability of imaging services :** A total of 80 (15.6%) facilities offer imaging services. Out of the total facilities, 57 % of the imaging services were offered by PHCs and 43 % were offered by the hospitals.

Table 58 : Percentage of health facilities offering imaging services by type and region

	Imaging offered PHC			Imaging offered Hospitals			Total		
	N	%	N Total	N	%	N Total	N	%	N Total
East	19	12.7%	150	14	100.0%	14	33	20.1%	164
Benghazi	19	20.4%	93	10	100.0%	10	29	28.2%	103
Central	13	13.0%	100	8	100.0%	8	21	19.4%	108
South	8	5.1%	158	7	100.0%	7	15	9.1%	165
Tripoli	28	9.8%	286	18	85.7%	21	46	15.0%	307
West	16	5.6%	287	20	100.0%	20	36	11.7%	307
Total	103	9.6%	1074	77	96.3%	80	180	15.6%	1154

- **Availability of specific imaging services in PHCs :** Result shows that 66 PHCs have functional x ray, 24 have functional ultrasound equipment and 17 PHCs reported to have functional ECG equipment. Only one facility reported to have functional CT scan available in south region while only one PHC in west reported having equipment for mammography services.

Table 59 : Percentage of health facilities offering specific imaging services by type and region

	X-ray machine		Ultrasound		CT scan		Electrocardiogram (ECG)		Mammography		N of facilities offering imaging
	N	%	N	%	N	%	N	%	N	%	
East	10	52.6%	7	36.8%	0	0.0%	5	26.3%	0	0.0%	19
Benghazi	10	52.6%	8	42.1%	0	0.0%	9	47.4%	0	0.0%	19
Central	10	76.9%	1	7.7%	0	0.0%	0	0.0%	0	0.0%	13
South	3	37.5%	1	12.5%	0	0.0%	1	12.5%	0	0.0%	8
Tripoli	21	75.0%	3	10.7%	0	0.0%	0	0.0%	0	0.0%	28
West	12	75.0%	4	25.0%	1	6.3%	2	12.5%	1	6.3%	16
Total	66	64.1%	24	23.3%	1	1.0%	17	16.5%	1	1.0%	103

- **Availability of specific imaging services in Hospitals :** Out of the 77 hospitals which reported on offering imaging services, 73 reported to have functional x ray machine, 71 reported to have functional ultrasound and 23 hospitals reported to have functional CT scan. The ECG machine was available in 59 facilities and only 9 hospitals were offering mammography services.

Table 60 : Percentage of hospitals offering specific imaging services by type and region

	X-ray machine		Ultrasound		CT scan		Electrocardiogram (ECG)		Mammograph		N of facilities offering imaging
	N	%	N	%	N	%	N	%	N	%	
East	12	85.7%	12	85.7%	3	21.4%	10	71.4%	2	14.3%	14
Benghazi	9	90.0%	10	100.0%	2	20.0%	9	90.0%	2	20.0%	10
Central	8	100.0%	7	87.5%	5	62.5%	8	100.0%	1	12.5%	8
South	7	100.0%	5	71.4%	1	14.3%	3	42.9%	1	14.3%	7
Tripoli	18	100.0%	17	94.4%	6	33.3%	11	61.1%	2	11.1%	18
West	19	95.0%	20	100.0%	6	30.0%	18	90.0%	1	5.0%	20
Total	73	94.8%	71	92.2%	23	29.9%	59	76.6%	9	11.7%	77

14. Diagnostic :

• **Availability of diagnostic services :** A total of 378 (32.9 %) of the facilities offer diagnostic services. Out of the total facilities, 79 % of the diagnostic services were offered by PHCs and 21% were provided by the hospitals.

Table 61 : Percentage of health facilities offering diagnostic services by type and region

	PHC			Hospitals			Total		
	N	%	N total	N	%	N total	N	%	N total
East	27	18.5%	146	14	100.0%	14	41	25.6%	160
Benghazi	38	40.9%	93	10	100.0%	10	48	46.6%	103
Central	47	47.0%	100	8	100.0%	8	55	50.9%	108
South	24	15.2%	158	5	71.4%	7	29	17.6%	165
Tripoli	107	37.4%	286	21	100.0%	21	128	41.7%	307
West	57	19.9%	286	20	100.0%	20	77	25.2%	306
Total	300	28.1%	1069	78	97.5%	80	378	32.9%	1149

• **Readiness of the primary health care facilities on diagnostic services :** The overall index is calculated based on availability of two tracer items i.e. functional equipment and availability of medicines. The overall readiness of the primary health care facilities on diagnostics services was 38.6 %.

Table 62 : Primary health care facilities readiness index for diagnostic services by region

	Material/medicine scores	Equipment scores	Overall readiness scores	N of facilities offering diagnosis
East	41.8%	46.0%	43.9%	27
Benghazi	38.0%	50.0%	44.0%	38
Central	35.0%	42.0%	38.5%	47
South	44.6%	48.6%	46.6%	24
Tripoli	25.2%	41.4%	33.3%	107
West	31.8%	46.9%	39.4%	57
Total	32.7%	44.6%	38.6%	300

- **Readiness of the hospitals on diagnostic services :** The overall index is calculated based on availability of two tracer items i.e. functional equipment and availability of medicines. The overall readiness of the hospitals on diagnostics services was 69.3 %.

Table 63 : Public hospitals readiness index for diagnostic services by region

	Material/medicine scores	Equipment scores	Overall readiness scores	N of facilities offering diagnosis
East	60.7%	62.1%	61.4%	14
Benghazi	73.0%	78.5%	75.7%	10
Central	76.3%	82.7%	79.5%	8
South	48.0%	53.8%	50.9%	5
Tripoli	63.3%	78.0%	70.7%	21
West	68.5%	73.1%	70.8%	20
Total	65.8%	72.9%	69.3%	78

15. Pharmacy :

- **Availability of pharmacy services :** A total of 397 (27.1%) of the facilities offer pharmacy services or other main storage area for pharmaceutical commodities. Out of the total facilities, 80% of the pharmacy services were offered by PHCs and 20% were provided by the hospitals.

Table 64 : Percentage of health facilities offering providing pharmacy services or storage of medicines services by type and region

	PHCs			Hospitals			Total		
	N	%	N Total	N	%	N Total	N	%	N Total
East	27	18.5%	146	14	100.0%	14	41	21.9%	187
Benghazi	42	45.2%	93	10	100.0%	10	52	35.9%	145
Central	28	28.0%	100	8	100.0%	8	36	26.5%	136
South	9	5.7%	158	6	85.7%	7	15	8.7%	173
Tripoli	121	42.3%	286	21	100.0%	21	142	33.2%	428
West	91	31.9%	285	20	100.0%	20	111	28.0%	396
Total	318	29.8%	1068	79	98.8%	80	397	27.1%	1465

Readiness Pharmacy :

• **Readiness of the primary health care facilities on pharmacy services :** The overall index is calculated based on availability of six tracer items i.e. medicines for infectious diseases, non-communicable diseases, reproductive health, maternity medicine, child medicines and mental health. The overall readiness of the primary health care facilities on immunization services was 10%.

Table 65 : Primary health care facilities readiness index for pharmacy services or storage of medicines services by region

	infectious diseases	non-communicable diseases	Reproductive health	maternity medicines	Child medicines	mental health	Overall medicine scores	N
East	73%	48%	9%	37%	71%	2%	40%	27
Benghazi	19%	13%	1%	15%	22%	0%	12%	42
Central	17%	14%	2%	9%	13%	0%	9%	28
South	5%	22%	0%	12%	7%	0%	8%	9
Tripoli	11%	8%	1%	6%	6%	0%	5%	121
West	16%	11%	2%	7%	14%	1%	9%	91
Total	19%	14%	2%	11%	16%	1%	10%	318

• **Readiness of the hospitals on pharmacy services :** The overall index is calculated based on availability of eight tracer items i.e. medicines for cardiovascular, diabetes, other general & symptoms NCD, mental health, anti-infective, maternal and neonate, surgical and IV fluids. The overall readiness of the hospitals on pharmacy services was 40.5%.

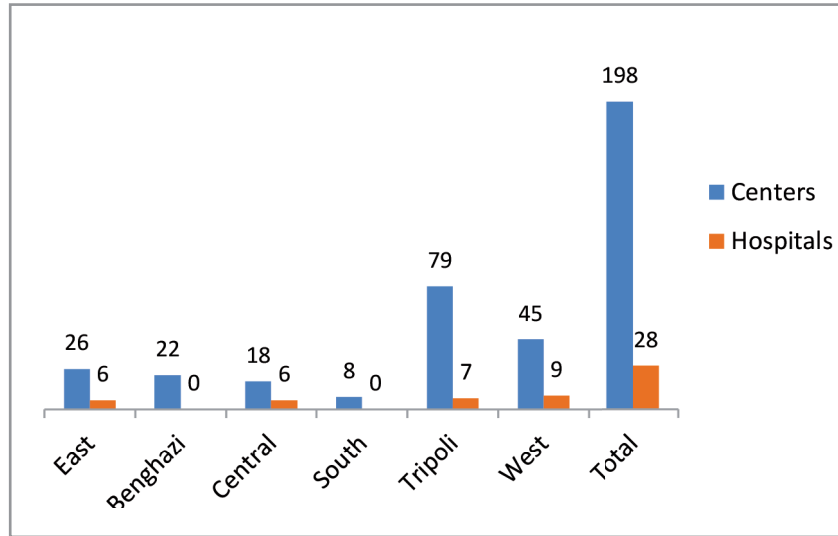
Table 66 : Public hospitals readiness index for pharmacy services or storage of medicines services by region

	Cardiovascular	Diabetes	Other General & Symptoms NCD	Mental Health	Anti-infective	Maternal and Neonate	Surgical	IV Fluids	Overall scores	N
East	31.7%	46.4%	38.1%	10.0%	37.8%	33.7%	27.4%	55.4%	35.1%	14
Benghazi	12.2%	23.3%	35.6%	11.3%	32.4%	18.6%	52.5%	67.5%	31.7%	10
Central	33.3%	45.8%	42.8%	14.2%	31.0%	33.9%	52.1%	68.8%	40.2%	8
South	9.3%	25.0%	22.6%	7.8%	28.6%	31.0%	13.9%	79.2%	27.2%	6
Tripoli	42.9%	62.7%	48.8%	23.5%	46.0%	38.8%	50.8%	81.0%	49.3%	21
West	45.0%	52.5%	43.8%	10.0%	33.1%	37.1%	46.7%	80.0%	43.5%	20
Total	34.0%	47.7%	41.4%	14.0%	36.7%	33.8%	43.1%	73.1%	40.5%	79

16. Availability of dental health services :

Result shows that overall 28 hospitals provide dental services, while 198 centers provide dental services.

Figure 10: Number of Health facilities offering dental health services





Conclusion :

1. 17% hospitals, 20.1% primary health care facilities and 8.8% other specific services facilities are closed.
2. Imbalance of human health workforce and shortage of specialists.
3. Underutilization of health services.
4. Limited inpatient bed density.
5. Limited family planning and antenatal care services.
6. Non availability of packaged adolescent health services.
7. Disease specific services availability and readiness is far below the targeted.
8. Limited availability of guidelines, SOPS in each specific and specialized areas.
9. Limited trainings conducted in the last two years.
10. Shortage of medicines, equipment's and diagnostic materials.

Annexures

Table A 1 : Hospital status and reason of closure by region

	Status						Reason for closure							
	Open		Closed		Total		Under maintenance		Closed due to damage		Hospital is not accessible		Total closed	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
East	14	100%	0	0%	14	100%	0	0%	0	0%	0	0%	0	100%
Benghazi	10	53%	9	47%	19	100%	1	11%	5	56%	3	33%	9	100%
Central	8	80%	2	20%	10	100%	0	0%	1	50%	1	50%	2	100%
South	7	78%	2	22%	9	100%	1	50%	1	50%	0	0%	2	100%
Tripoli	21	91%	2	9%	23	100%	1	50%	1	50%	0	0%	2	100%
West	20	91%	2	9%	22	100%	1	50%	1	50%	0	0%	2	100%
Total	80	82%	17	18%	97	100%	4	24%	9	53%	4	24%	17	100%

Table A 2 : Status of primary health care facilities by region

	PHC Units		PHC Centers		Polyclinics		Total PHCs	
	Open	Closed	Open	Closed	Open	Closed	Open	Closed
East	59	57	84	23	11	0	154	80
Benghazi	31	16	57	14	5	2	93	32
Central	50	16	42	12	8	1	100	29
South	90	18	65	10	3	0	158	28
Tripoli	119	35	150	6	17	3	286	44
West	185	52	100	8	6	0	291	60
Total	534	194	498	73	50	6	1082	273

Table A3 : Status of other health facilities by region

	Open	Dental Clinic	
	Closed		
	Open	NCDC Branches	
	Closed		
	Open	Dialysis Center	
	Closed		
	Open	Medical Supply Warehouse	
	Closed		
	Open	Ambulance Service Center	
	Closed		
	Open	Referral Medical Laboratory	
	Closed		
	Open	Blood Bank	
	Closed		
	Open	Infertility Specialized Centre	
	Closed		
	Open	Diabetes Treatment Center	
	Open	Mental clinic	
	Open	Oncology Center	
	Open	Physiotherapy Centre	
	Open	CDC& Immunology	
	Open	Diagnostics and Imaging center	
	Open	Total	30
	closed		1
East	1	4	4
Benghazi	2	2	4
Central	2	4	6
South	1	2	3
Tripoli	3	4	7
West	3	7	10
Total	12	23	52



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