



**The Union of Charitable Societies - Jerusalem**

# **Study of East Jerusalem Healthcare Sector**



**Asma Imam, PhD**  
**Motasem Hamdan, PhD**

**January 2021**



# Study of East Jerusalem Healthcare Sector

Asma Imam, PhD

Motasem Hamdan, PhD

Publications of the Union of Charitable Societies - Jerusalem

2021



This project is funded  
by the European Union

Study Title: East Jerusalem Healthcare Sector

General supervision and Review: Mr. Yousef Kirry, Director-General of UCS

Principal Researchers: Dr. Asmaa Al-Imam and Dr. Mutasem Hamdan

Publisher: The Union of Charitable Societies - Jerusalem

First edition


Release Date: January 2021


Place of Publication: Jerusalem, Palestine.

This book may not be reproduced, stored in a retrieval area, transmitted or reproduced in any way without the written permission of the publisher.

All rights reserved to the Union of Charitable Societies/Jerusalem

Address: Jerusalem, Beit Hanina, Khalil Al Sakakini Street (45)

 +972 2 6285870

 +972 2 6285361

 info@ucs-pal.org

 www.ucs-pal.org

   UCS-Jerusalem

This study has been published as part of the EU-funded project “Towards Social Inclusion in Community Development by Providing Platforms for Planning and Advocacy,” in partnership with the Union of Charitable Societies – Jerusalem, the Applied Research Institute – Jerusalem (ARIJ), the Hasso Plattner Institute (HPI) – Germany, and Cooperazione e Sviluppo Onlus (CESVI) – Jerusalem. The study and its conclusions are those of the author and do not necessarily reflect the official position of the EU.

**The Union of Charitable Societies-Jerusalem (UCS)** is the first Palestinian non-profit and independent union of non-governmental charitable and development societies that was established in Jerusalem in 1958. (UCS) strives to build an effective Palestinian civil society through advancing the Palestinian civil work in an institutionalized and democratic manner and according to the principles of good governance and accountability in order to contribute to the national development and sustainable development. About 150 local NGOs/CBOs are members in the UCS and operating in various developmental, social and humanitarian fields.

UCS aims mainly at empowering the civil society organizations, developing their resources and advocating for their rights and causes. It also strives for supporting sectoral development priorities in the fields of social welfare, poverty reduction, health, education, childhood, women and youth empowerment, integration of the disabled people, elderly care, human development and demographic planning.



## Introduction

We, at The Union of Charitable Societies-Jerusalem (UCS) are delighted to place this policy study in your hands. The study is meant to fill a knowledge gap about the healthcare sector in Jerusalem city which is a priority need for the citizens of Jerusalem. The study provides a comprehensive description of the health services in East Jerusalem, and the sufficiency of the available healthcare services for the Palestinian population of Jerusalem. Furthermore, the study highlights the health needs and the challenges that face the healthcare sector in the city, in addition to some of the critical health indicators and the spread of chronic diseases that reflects the health condition of the citizens of Jerusalem, not to mention as well the dangerous social and health maladies such as smoking and drug addiction. All of this generates calls for arranging these needs by priority before proceeding with any strategic planning for the development of the health sector. This carries us from the random revival aid to the institutionalization and planning and systematic, calculated and effective development.

This study comes as part of the completion of the UCS's planning and evaluation efforts, alongside with the efforts of the different international bodies and governmental entities and a handful of NGOs to place the challenges that face the hospitals and the health institutions, and the actual needs of the citizens in Jerusalem. The study also addresses the gaps between the neighborhoods in Jerusalem that may seem similar for some people, but in fact are different from one neighborhood to another due to social, environmental, constructional, demographic, political and economic factors as revealed by the results of the study in different health indicators.

Thus, the research efforts of the UCS that addressed important aspects for the Jerusalem society, including the results of this study, focused on adopting mechanisms that rely on participatory planning built on the basis of population clusters in the different neighborhoods of Jerusalem. We hope that the results of this study form a reference guide for these gaps in the neighborhoods and at all levels, which in turn will raise local and international awareness of the effects of spatial, demographic, exclusive and marginalization politics in Jerusalem, and also encourage the Jerusalemites to claim their rights. The study provides an important material for the civil society institutions in order to advocate the citizens' issues in terms of the diminution of their rights, as well as planning for more effective programs to meet their health, educational, economic and infrastructure and other needs. This can also direct the governmental strategic plans and the orientations of the donor institutions towards the priorities in Jerusalem,

not to mention the harmony and the joint coordination of the efforts of other NGOs, international institutions and governmental institutions who provided important results for achieving this goal.

I hope the results of this study and its recommendations will be taken seriously while designing the strategic plans of the related ministries and international institutions, not to mention the responsibility of the NGOs to design their future programs and interventions for unifying the upcoming efforts in a specialized joint work that aims towards the public interest and towards serving the citizens of Jerusalem.

In conclusion, I would like to thank the research team who accomplished this study in a complex research environment filled with challenges and intentional withholding of a lot of information. I also send greetings to all the hospitals, health centers, rehabilitation centers and respondents who cooperated with us in data collection, and facilitated the researchers' task. Also thanks to our partners in the project that this study came as one of its components, along with our gratitude to the supporters of this study.

**Yousef Kirry**

**Director-General of the UCS**

## Abstract

East Jerusalem consists of 49 localities in J1 (20) and J2 (29). In 2017, the total Palestinian population living in East Jerusalem was estimated to 435,753 (PCBS, Survey, 2019). According to the Israeli Bureau of Statistics data, 69.2% of the Arabs families in East Jerusalem under the poverty line in 2016 compared with 36.7% of overall Jerusalem and 18.2% among families in Israel in (Social insurance institute 2016). In 2013, around 92.4% of individuals in Jerusalem Governorate reported having health insurance (97.1% in Area J1 and 84.8% in Area J2). In J1, 95.5% reported using Israeli insurance (KupatHolim/Sick funds) compared with 6.6% in Area J2 (PCBS, Jerusalem yearbook, 2017). According to Palestinian Central Bureau of Statistics, in Jerusalem Governorate, 5.6% of the population receive treatment for diabetes and 5.4% for high blood pressure in 2013 (PCBS, Jerusalem yearbook, 2017).

Health services in East Jerusalem is a fundamental part of the Palestinian health care system. East Jerusalem Hospitals (EJHs) services are a major source for tertiary healthcare services for the Palestinians living in the West Bank and Gaza Strip. The ambulatory healthcare provided in primary care centers mainly offer its services for East Jerusalem people. These include primary care, mental health, rehabilitation and other social services. According to Kunbar (2019), there are 88 clinics/centers, which serve the population of East Jerusalem.

Since there is no adequate information about the adequacy of health care services available for Palestinians, the unmet health needs and challenges facing the health sector in EJ. Therefore, it is crucial to identify and prioritize these needs before planning and implementing any development process.

### 1. Aim and objectives of the study

The overall aim of the study is to describe the provision of health services and some health indicators of the population in EJ.

The objectives of this study are:

- To assess some health conditions of EJ population,
- To describe EJ health service institutions including types of services provided, capacities, utilization patterns (access to services and waiting time, etc.), patient satisfaction, hindering factors and challenges that face health institutions and their customers.

The results of the study can be used to serve in the following activities: (1) identify health services needed (2) health planning and evaluation (3) decision making at both institutional and policy levels.

**2. Study design:** A quantitative design was utilized to assess EJ population health conditions, patient satisfaction and the supply of health care services including capacity of institutions and available resources, as well as services utilization. In addition to that, a qualitative design was used to complement data collection and to understand the views of providers about provided services, needs and challenges that face the institutions and customers.

**3. Target population and study settings:** East Jerusalem population is the target population, in addition to healthcare institutions: EJ hospitals and ambulatory health services. The boundaries of the study are J1 localities (according to PCBS, 2013) except Shu'fat Camp. In addition, Kufr Aqab and Bir Ona were included in the study. The selection was based on the project mandate and willingness of institutions to provide data.

**4. Study sample:** **For the household survey,** The total number of surveys that required to produce the desired statistics was 3,747 HHS distributed over 15 residential neighborhoods. The total number of people in the surveyed houses was 16,433 people. **For healthcare institutions,** all EJ hospitals were included in the study and a convenient sample of ambulatory care centers from north, center and south of EJ. **For patient satisfaction:** A convenient sample of 330 patients that attended the targeted healthcare institutions during August-September 2019 were selected. Six different questionnaires were used to collect the data including household survey: Hospital Survey, Healthcare Centers Survey, Psychological and Counseling Centers' Survey, Rehabilitation and Physiotherapy Survey and Patient Satisfaction Survey.

**5. Data collection and analysis:** Trained data collectors conducted **Household Survey.** Semi-structured interviews conducted with **healthcare institutions'** managers and data related to health institutions services, capacities, resources and utilization were obtained directly from healthcare institutions. **Patient satisfaction** questionnaire distributed to patients after they received the health services and prior to leaving the healthcare institutions. The researchers entered the collected quantitative data using the statistical package for social sciences version 18. Descriptive statistics were calculated. In addition, the qualitative data were analyzed using thematic content analysis approach.

**6. Main Results: Household survey:** About 10% of the participants indicated that they are with pre-existing health conditions. The main two health

conditions children suffered of pulmonary (0.50%) and cardiovascular diseases (0.30%) and the two main health problems among adults are diabetes (4.32%), and cardio-vascular and hypertension (2.84%). The residents of the old city are with the worst health conditions among localities of East Jerusalem, where about 19.7% indicated having a health problem mainly due to chronic diseases followed by Kafr Aqab with 13.6% indicated having health problems. The prevalence of smoking tobacco among adults above 18 years old was 29.0% and among children 1.4%. The highest percentage of smoking is reported in Sur Bahir and Um Toba (33.8%), then Old City 32%, and the lowest percentage was reported in Sharafat 20%. The survey identified 249 persons with at least one type of disability, indicating a percentage of 1.5 per 100 population and the highest type is mobility impairment (0.7). The highest percentage of disability (3.9%) is reported in Kuf Aqab. The overall insurance coverage of the participants is 97.7% consists of 96.8% Israeli insurance, 0.4% Palestinian governmental insurance, 0.3% private and 0.2% UNRWA insurance scheme. The lowest insurance coverage reported in Kafr Aqab 80.0% consisted of 77.7% Israeli government and 2.3% private insurance.

Out of 3747 households surveyed, (89.24%) believed that drug abuse is a common social problem and the highest percentage was reported in Shufat 99.4%, and the least reported was in Isawiya & Sheikh Jarah 56.67%. Moreover, 53.24% of respondents thought that drug trading and/or abuse is taking place inside or near their neighborhood and the highest percentage was reported in Silwan 83.47% and the lowest was reported in Isawiya & Sheikh Jarah 9.05%.

## **Healthcare Services:**

**East Jerusalem Hospitals** There are 651 hospital beds available in five East Jerusalem hospitals, which serve all Palestinian living in EJ, West Bank and Gaza Strip. In 2018 80,717 patients were admitted to EJ hospitals, about 240,000 were treated in the outpatient clinics and 58,530 patients treated in the emergency rooms. In addition, 7,474 births and 16,365 surgical operations were conducted in EJ hospitals. The percentage of Jerusalemites treated in EJ hospitals were 24% of inpatient admissions, 64.8% of outpatient visits, 91.3% of emergency department visits, and 90.3% of deliveries.

The MoH data shows that the number of referrals to EJ hospitals in 2018 was 43,256 cases, which is about 40% of referrals outside the MoH facilities (MoH report, 2018). The cost of these referrals was estimated to

be 278,138,660 NIS, about 38% of the cost of the MoH outside referrals in 2018 (MoH, 2018).

The average waiting time for routine surgical operations is at least two weeks in most hospitals. While patients receive care in less than one-hour in emergency rooms in EJ hospitals, they wait for around 1.5 hours in outpatient clinics in most hospitals. There are 2203 personnel, 2088 full-time (95.0%) and 115 part-time (5.0%), working at EJ hospitals. Out of which 74% carry West Bank identity cards.

**Primary Health Centers:** Twenty health centers were surveyed out of 88. The reported number of patients attending health care centers to receive services range between 40 to 300 patients daily. General medicine, gynecology and obstetrics, nutrition and dietetic and emergency care services during daytime are available (100%) in all health centers. Post-surgery services as well as physiotherapy and rehabilitation services are less frequently available (55%). Psychiatry and counselling services are available only in 40% of the health centers. 633 personnel are working in the surveyed health centers; 60% full time and 40% are part-time personnel. The majority of the surveyed centers (85%) reported referring patients in the first place to Israeli hospitals in the city. The main challenge reported by administrators is the high competition over patients due to the large number of centers in the same area. Moreover, the administrators revealed that the key challenge facing patients is long waiting for treatment appointment and similarly for getting administrative approval of Israeli Sick Funds on expensive diagnostic services.

**Rehabilitation centers:** Four out of six rehabilitation centers surveyed. Number of outpatients receiving services in the centers ranged from 600 to 6000 annually. Three centers provide services to adult clients and one for children under 18 years old. Only 39 personnel reported working in the surveyed physiotherapy and rehabilitation centers and 82% work full time. The two main challenges that face the centers are most patients referred from ISF they are entitled for 12 sessions only according to IMoH policy and lack of financial resources for the provision of effective services. **Mental health centers:** Four centers out of six were selected and agreed to participate; three from East and one from West Jerusalem. The average number of clients who seek services from the mental health ranges from 15 to 50 clients per day. All surveyed centers offer counseling and psychological health promotion and awareness. Moreover, three centers provide individual therapy and training on psychological counseling and one gives group therapy. Two hundred twenty six personnel reported working

in the counseling centers and only 27% are full-timer. All centers indicated that the main challenge facing them is the lack of people participation in center activities because they are afraid of stigmatization and the lack of awareness of the importance of seeking services and psychological support.

**Patients' satisfaction:** Around 63% of the respondents were satisfied with healthcare they received. Moreover, 63% of the respondents prefer to be treated in Israeli hospitals while 31% prefer Arab hospitals. The three main reasons for selecting the Israeli hospitals by the respondents were high quality of services, professionalism of the hospital staff and comprehensiveness of services. However, the three main reasons for selecting the Arab hospitals were communication and understanding/ no language barrier, staff respect of patient religion and traditions, proximity to place of residence. The three main challenges that patients face are long waiting times for appointments, improper locations of healthcare institutions and language barrier when referred to Israeli institutions.

**7. Conclusion:** There are differences in some health indicators among neighborhoods in EJ and this needs further studies. More attention for promoting quality preventive services and smoking cessation programs. There is an urgent need to develop comprehensive, treatment and rehabilitation programs in EJ for dealing with drug abuse people. There is a crucial need for healthcare centers staff training and development. Rehabilitation services need more development in East Jerusalem. The accessibility and availability of psychological therapy and counselling services in EJ are still weak. A priority area in EJ would be raising awareness of people through different means and activities on mental health services and addressing the stigma issue. Employing Arabic speaking counselors and psychiatrists is crucial. Another area that needs attention is improving accessibility to mental services through decreasing long appointment time and improving the referral process. Arab hospitals in their plans should concentrate on developing the capacity of staff and the use of new diagnostics treatment technologies.

# Contents

1. Background.....	1
2. Literature review .....	1
2.1 Demographics.....	1
2.2 Socio-economic status .....	2
2.3 Health status, needs and challenges .....	2
2.4 Health care system in East Jerusalem .....	3
2.4.1 Hospital services .....	3
2.4.2 Primary health care services .....	4
2.4.3 Infant healthcare .....	5
2.4.4 United Nation Refugees and Work Agency (UNRWA).....	6
2.4.5 Palestinian NGOs health centers .....	6
2.4.6 Mental health services.....	7
2.4.7 Rehabilitation and physiotherapy centers services .....	8
2.5 East Jerusalem health sector strategy and plan .....	10
3 Methods .....	11
3.1 Aim and objectives of the study .....	11
3.2 Study design .....	11
3.3 Study setting & target population .....	11
3.4 Study sample .....	11
3.5 Data collection tools .....	13
3.6 Data collection and analysis.....	13
3.7 Ethical consideration and permissions.....	14
4 Results and Discussion.....	15
4.1 Health conditions and selected indicators.....	15
4.2 Smoking .....	19
4.3 Disability .....	20
4.4 Health insurance status .....	22
4.5 Occupation status.....	24

4.6 Drug abuse .....	26
5 East Jerusalem Hospital Services.....	30
5.1 Use of information technology in hospitals .....	30
5.2 Hospitals' capacity and utilization .....	30
5.3 Referrals to EJ hospitals.....	30
5.4 Utilization of EJ hospitals by Jerusalemites .....	31
5.5 Waiting time to receive services .....	31
5.6 Radiology and imaging services.....	31
5.7 Hospitals personnel by category .....	31
6 Ambulatory health care services.....	36
6.1 Health centers distribution .....	36
6.2 Health centers working days and hours.....	36
6.3 Number of patients .....	36
6.4 Type of services provided.....	36
6.5 Specialized medical services provided .....	37
6.6 Use of information technology in health centers.....	38
6.7 Health centers personnel.....	38
6.8 Patients' referral to hospital .....	39
6.9 Quality and patient safety systems .....	39
6.10 Staff training and development.....	39
6.11 Challenges facing centers and patients.....	39
7 Rehabilitation & physiotherapy services .....	48
7.1 Surveyed rehabilitation centers and locations .....	48
7.2 Type of cases treated by the rehabilitation centers .....	48
7.3 Types of services provided by the rehabilitation centers .....	49
7.4 Health personnel.....	50
7.5 Challenges and obstacles that face rehabilitation centers.....	51
7.6 Quality programs and licensing of rehabilitation centers .....	52
7.7 Future plans for development and new services .....	53
8. Mental Health Services .....	54

8.1 Centers' survey and locations .....	54
8.2 Type of services provided.....	55
8.3 Mental health centers personnel .....	55
8.4 Type of services provided.....	56
8.5 Challenges and obstacles that face mental health centers .....	57
8.6 Type of programs/services planned for the next 5 years.....	58
9 Patients Satisfaction .....	60
9.1 Introduction .....	60
9.2 Socio-demographic characteristics of the participants .....	61
9.3 Reasons for attending health centers.....	62
9.4 Type of referrals .....	63
9.5 Satisfaction level of health services.....	63
9.6 Patient preferences of receiving hospital care .....	64
Hospital preference .....	64
9.7 Challenges facing patients in EJ health institutions .....	65
9.8 Patient reported health needs in EJ .....	67
9.9 Limitations .....	68
10 Conclusions and Recommendations .....	69
11 References.....	73
12. Annexes .....	77

## List of Tables

	Page
Table 1: The total number of households and the estimated sample size distributed over 15 residential neighborhoods	12
Table 2: Distribution of targeted healthcare institutions in EJ	13
Table3: Reported health conditions by age groups of participants	16
Table 4: Reported health conditions by area of residence	17
Table 5: Smoking percentage by age groups	19
Table 6: Reported disability among survey participants by age groups	21
Table 7: Reported disability percentage by area of residence	22
Table 6: Health insurance status of participants (%)	23
Table 9: Occupation status of the survey participants	25
Table 10: Occupation status of the survey participants (above 18 age) by locality	27
Table 11: Hospital electronic health information and communication system status 2019	32
Table 12. Hospital utilization statistics, 2018	32
Table 13: Number and percentage of patients Jerusalem ID holders from total patients per type of services 2018	33
Table 14: Average waiting time for main services provided	33
Table 15: Availability of radiology & imaging services in EJ Hospitals and estimated waiting time	34
Table 16: Hospital personnel by category 2018	35
Table 17: Information of the surveyed health centers	41
Table 18: Type of services provided by the health centers, 2019	42
Table 19: Type of specialized medical services provided at the health centers (No. of days per week: weekly hours), 2019	43
Table 20: Health centers' health information and communication system status 2019	44
Table 21: Health centers personnel by category 2019	45
Table 22: Hospital referral to hospitals by centers	46
Table 23: Quality and patient safety program and staff development initiatives implemented by centers	46
Table 24: Administration perception of challenges and obstacles that face centers and patients	47
Table 25: Information of the surveyed health centers	48
Table 26: Type of cases treated in the health centers, 2019	49

Table 27: Type of treatment & rehabilitation services provided by the health centers	50
Table 28: Physiotherapy and rehabilitation personnel by category 2019	51
Table 29: Challenges and obstacles that face rehabilitation centers	52
Table 30: Quality programs and licensing of rehabilitation centers	52
Table 31: The services that the rehabilitation center planned for in the next five years	53
Table 32: Information of the surveyed mental health centers	54
Table 33: Type of services provided by the mental health centers	55
Table 34: Health Centre personnel by category 2019	56
Table 35: Type of health conditions treated at the center	57
Table 36: Challenges and obstacles that face mental health centers	58
Table 37: Types of programs/services planned for the next 5 years	59
Table 38: Distribution of respondents according to service providers	61
Table 39: Distribution of respondents by type of insurance	61
Table 40: Age categories of the respondents	62
Table 41: Distribution of respondents by gender	62
Table 42: Distribution of respondents by place of residency	62
Table 43: Distribution of the reasons of last visit to the healthcare institution.	63
Table 44: Distribution of respondents by type of referral	63
Table 45: Distribution of respondents according to the level of satisfaction	64
Table 46: Distribution of respondents according to hospital preference	64
Table 47: Reasons of respondents' preference of Israeli hospitals N=188	64
Table 48: Reasons of respondents' preference of Arab hospitals (N=93)	65
Table 49: Challenges that face patients in health institutions in East Jerusalem (N=209)	66
Table 50: Health related needs as reported by patients (N=183)	67

## List of Figures

	Page
Figure 1: Smoking and adult (18+) by area of residence	20
Figure 2: Insurance coverage % by residence	24
Figure 3: Respondents who think drug abuse is common social problem	29
Figure 4: Respondents who think that drug trading and/or abuse is taking place inside or near their neighborhood	29
Figure 5: Respondents who think that a member of their families been approached and/or harassed by individual trading or using drugs	29

# Annexes

	Page
Annex A: Hospital Survey questionnaire	77
Annex B: Healthcare Centers Survey questionnaire	81
Annex C: Psychological and Counseling Centers Survey questionnaire	85
Annex D: Rehabilitation and Physiotherapy Survey questionnaire	88
Annex E: Patient satisfaction questionnaire	91
Annex F: Health centers locations	92

## List of Abbreviations

ASDs	Autism Spectrum Disorders
CBR	Community Based Rehabilitation
CT	Computed tomography
ECHO	Echocardiography
EJ	East Jerusalem
EJHs	East Jerusalem Hospitals (EJHs)
ENT	Ear, Nose, Throat
HH	Households
ICBS	Israeli Central Bureau of Statistics
IMoH	Israeli Ministry of Health
ISO	International Organization for Standardization
ISF	Israeli Sick Funds
IVF	In vitro fertilization
J1	Includes those parts of Jerusalem which were unilaterally annexed by Israel in 1967: Beit Hanina, Shu’fat Refugees Camp, Shu’fat, Al’ Isawiya, Sheikh Jarrah, Wadi Al-Joz, Bab Al-Sahira, As Suwwana, At-Tur, Jerusalem “Al-Quds”, Ash-Shayyah, Ras Al-Amud, Silwan, Ath-Thuri, Jabal Al-Mukabbir, As-Sawahira-Gharbiya, BeitSafafa, Sharafat, Sur Bahir, Um Tuba and KufrA’qab.
J2	Includes the remaining localities of the Jerusalem Governorate: Rafat, Mikhmas, Qalandya Refugees Camp, the Bedouin Community-Jaba’, Qalandya, Beit Duqqu, Jaba’, Al-Judeira, Beit Anan, Al-Ram, Dahiat Al-Bareed, Al-Jib, Bir Nabala, Beit Ijza, AlQubeiba, Khirbet Um Al-Lahem, Biddu, An-Nabi Samu’eil, Hezma, Beit Hanina Al Tehta, Qatanna, Beit Surik, Beitlksa, A’nata, the Bedouin Community, Al-Khan Al-Ahmar, AzZa’eem, Al-Eizariya, Al-Sawahreh, Al-Sharqiyeh, Ash- Sheikh Sa’d, Al-Eizariya, Abu Dis.
JCI	Joint Commission International

JPBRC	Jerusalem Princess Basma Rehabilitation Centre
MCH	Mother & Child Healthcare
MRI	Magnetic Resonance Imaging
MICS	Multiple Indicator Cluster Surveys
NGO	Non-Governmental Organization
PET	Positron Emission Tomography
PCBS	Palestinian Central Bureau of Statistics
PHC	Primary Health Care
PMoH	Palestinian Ministry of Health
PNIPH	Palestinian National Institute of Public Health
SCC	Spafford Children's Center
UCS	The Union of Charitable Societies-Jerusalem
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
UTI	Urinary Tract Infection
WB	West Bank
WHO	World Health Organization

# 1. Background

Health services in East Jerusalem (EJ) is a fundamental part of the Palestinian health care system. Health care services that are provided in East Jerusalem Hospitals (EJHs) are a major source for tertiary health care services for the Palestinians living in the West Bank and Gaza Strip. Ambulatory health care provided in primary care centers mainly offer its services for East Jerusalem people. These include primary care, mental health, rehabilitation and other social services. Since EJ falls within the Israeli jurisdiction, these hospitals and centers are monitored and certified by the Israeli Ministry of Health. Some institutions, such as the EJHs have both Palestinian and Israeli licensing.

Since there is no adequate information about the sufficiency of health care services available for Palestinians, the unmet health needs and challenges facing the health sector in EJ. Therefore, it is crucial to identify and prioritize these needs before planning and implementing any development process. This survey reviews available health services in East Jerusalem for Jerusalemites and aims to assess the availability; adequacy of services, unmet health needs as well as the challenges faced by the Jerusalemites and health care providers.

## 2. Literature review

### 2.1 Demographics

Following the occupation of the West Bank and Jerusalem in 1967, Israel incorporated EJ into the Israeli administration and residents were given a different status than to Palestinians in the West Bank and Gaza. Since the early 2000s, EJ has further been physically separated from the rest of the West Bank by the separation barrier.

Currently, EJ consists of 49 localities in J1 (20) and J2 (29). These localities have several health-related needs that might vary based on living conditions, type of facilities and available services. Based on most recent data available from the Palestinian Central Bureau of Statistics (PCBS) in 2017 (PCBS, Survey, 2019), the total Palestinian population living in Jerusalem was estimated to 435,753 (9% of the population of Palestine and 14% of the West Bank) in 2017. Of them about 265,000 live in J1 localities. The annual population growth rate of 2.2% compared 2.7% in Palestine (PCBS, Survey, 2019). The population density was estimated to 1,262 population per Km<sup>2</sup>. In 2013, Palestinian refugees comprised 25.1% of the total population of Jerusalem governorate: 21.2% in Area J1 and 31.4% in Area J2 (PCBS, Jerusalem yearbook, 2017).

In 2017, the distribution of population in Jerusalem were in Beit Hanina (40,500), Kafr 'Aqab (29,000), A-Tur and the slopes of the Mount of Olives (27,600), the Muslim Quarter of the Old City (24,500), Jabal al-Mukaber (23,600), Ras al-'Amud (23,000), and Shu'afat (22,800) (Korach, &Choshen, 2019). In EJ, 36% of the Arab population were children (ages 0-14), only 4% seniors (ages 65 and older) and median age was 21 years (Korach, &Choshen, 2019).

## **2.2 Socio-economic status**

Illiteracy rate was 2.2% (1.3% for males and 3.3% for females) compared to 4% Palestine territories. About 14.5% of the population have a university degree or above. The unemployment rate in Jerusalem Governorate of persons aged 15 years and above was 15.4% in 2016 (PCBS, Jerusalem yearbook, 2017) compared to 27.2% in Palestine (40% Gaza, 24% WB) (PCBS, 2017). Despite that, Jerusalemites are under the authority of Israel, Arabs living in Jerusalem suffer from economic inequities compared to Israelis. According to the Israeli Bureau of Statistics data, 69.2% of the Arabs families in East Jerusalem under the poverty line in 2016 compared with 36.7% of overall Jerusalem and 18.2% among families in Israel in (Social insurance institute 2016).

## **2.3 Health status, needs and challenges**

**Child health:** Between 2015- 2017 the infant mortality rate was about 5.7 per 1,000 live births among Arabs in Jerusalem (Korach& Choshen, 2019), compared to 18 per 1,000 live births in Palestine (MICS, 2014). Less than five years child mortality rate is not available for Jerusalem. However, it was estimated at 20 per 1,000 in WB including East Jerusalem (MICS, 2014). Low-birth weight infants (less than 2500 gram) were estimated at 9.3% of live births.

**Fertility:** In 2017, the birth rate among the Arab population was 26.4 births per 1,000 residents (8,900 infants (Korach, &Choshen, 2019). Meanwhile, the mortality rate among the Arab population in EJ was 2.6 deaths per 1,000(Korach, &Choshen, 2019). About 99.1% of the deliveries occur in health facilities with a 24.8% cesarean section rate (MICS, 2014). About 48.2% of currently married women age 15-49 years who are using (or whose partner is using) a modern contraceptive method, and 10.8% of women with unmet need for family planning (MICS, 2014). The total fertility rate among Arabs in Jerusalem was 3.13 births in 2015 (The Israeli Central Bureau of Statistics-ICBS, 2016).

**Non-communicable disease:** In Jerusalem Governorate, 5.6% of the population receive treatment for diabetes and 5.4% for high blood pressure in 2013 (PCBS, Jerusalem yearbook, 2017).

**Disability:** Disability is a key health status outcome. The percentage of disability in Jerusalem was estimated 1.4% in 2011 (1.8% for age 18+), which is the lowest in Palestine (PCBS, Disability Survey, 2011). According to the disability survey, the main type in Palestine was mobility disabilities (PCBS, Disability Survey, 2011).

**Drug addiction:** One of the key social and health challenges in Jerusalem is the problem of addiction and substance abuse. Data available from the PCBS Jerusalem social survey in 2013 shows that about 59.4% of the Palestinian households in Jerusalem think that there is a drug addicts in their environment, this percentage is about 63.2% in J1 localities (PCBS, 2019). The implications of this problem are worrying. About, 4.7% of Palestinian households report being abused by a drug addicts, and the percentage is 4.9% in J1 localities (PCBS, 2019). In Jerusalem the reasons for first drug use reported by users included curiosity, peer pressure, for pleasure and fun, family neglect, poor living conditions, unemployment, misled by the Israeli occupation in prisons, broken relationships, dropping out of school, and working in Israel (PNIPH, Illicit drug use, 2017).

**Health insurance coverage and challenges:** In 2013, around 92.4% of individuals in Jerusalem Governorate reported having health insurance (97.1% in Area J1 and 84.8% in Area J2). In J1, 95.5% reported using Israeli insurance (KupatHolim/Sick funds) compared with 6.6% in Area J2 (PCBS, Jerusalem yearbook, 2017).

## **2.4 Health care system in East Jerusalem**

### **2.4.1 Hospital services**

There are seven hospitals in EJ with a total of 714 beds capacity including a child rehabilitation center (MoH, 2018). Except Al Go'aba geriatrics, all of them are NGO Palestinian hospitals and were established before the occupation of East Jerusalem in 1967.

Al-Makassed is the largest hospital with 35% of the total available beds in EJ, Augusta Victoria is the second with about 23.9%, and Saint Joseph's is the third with 21.7%. Then, Al Go'aba- Geriatrics is 7.3%, St. John's with 5.0%, followed by the Red Crescent 4.2%, Princess Basma 2.8% of the total available beds in EJ hospitals (MoH, 2018). While Al-Makassed, Augusta

Victoria and St. Joseph's are general hospitals, St. John's, Red Crescent and Princess Basma and Al Go'aba hospitals provide specialized hospital services.

These hospitals are main providers of tertiary health care for patients referred by the MoH for services unavailable in West Bank and Gaza Strip. According to the Ministry of Health report 2018, in 2017 the total number of referrals to East Jerusalem hospitals was 36,414, representing 38% of the treatment referrals outside PMoH (PMoH Report 2018).

The six NGO hospitals embarked on a quality improvement process early 2001 that led to ISO certification for most administrative and medical services. In 2010 with the support of EC and WHO, EJ Hospitals started the Joint Commission International (JCI) accreditation. By 2015, except for St. Joseph five hospitals have received the JCI accreditation. Accreditation is empowering hospitals against Israeli policies and licensing requirements. It also enabled them to provide safer care and protect hospitals from malpractice suits in Israeli courts and heavy fines, which in fact significantly decreased after JCI.

#### **2.4.2 Primary health care services**

According to Kunbar (2019), there are 88 clinics/centers, which serve the population of East Jerusalem. The majority of the 88 medical clinics are privately owned and contracted by the four main health maintenance organizations (Israeli Sick Funds) and only a minority of the health care centers are operated by the maintenance organizations themselves. This means they are highly profit oriented and compete with each other. Moreover, the locations of the clinics are not always suitable for the residents. There is a lack of professional supervision of the clinics. In addition, there is still a lack of mother and child health centers, of emergency units at the hospitals in East Jerusalem and a severe lack of professional qualified personnel in the field of psychiatry (Kunbar, 2019).

#### **Israeli sickness funds**

According to the Israeli National Health Insurance Law of 1995, all residents are covered by health insurance which entitles them to the services included in the health services basket which is updated regularly. The health care in EJ is provided by 4 Israeli Sick Funds (ISF) which provide health care according to the directives of the Israeli Ministry of Health (IMoH). Each Israeli citizen including Jerusalem identity document holders, above age 18 pays 4.5 % of his/her income to the social security institute as Health tax (Goldfracht, 2019). The funds are given to the sick funds (not-for-profit organizations)

according to a certain capitation formula that is dependent on the number of members in each fund and their age. The health bill covers all the health services excluding dentistry (covered for children only) and mental health care, which is the direct responsibility of IMoH (Goldfracht, 2019). Moreover, insured persons are sharing in the cost for pharmaceuticals, physician visits and certain diagnostic tests. There is a competition among sick funds because of the differences between insurance packages, the location and availability of their facilities, the types of supplemental policies and additional services offered. This encourages clients to switch between Sick Funds. In general, each fund allows its members to choose a primary-care physician and specialists from the list of doctors associated with the fund.

The Sick Funds distribution in EJ is as follows: **Clalit 55% (41 clinics), Meuhedet 22% (17 clinics), Leumit (12%) (9 clinics) and Maccabi 11% (7clinics) (Annex 1).**

**Sick Fund Clalit:** In East Jerusalem, there are seven clinics operating under the direct administration for Clalit in Sheik Jarah, Al-Musrarah, Bab Al-Amoud, Dahyeht Al-Bareed, Bab-Almud, and Sur Baher. Sheik Jarah centers serve around 200,000 people. The majority of the centers that provide healthcare services for the EJ population are privately owned and contracted by ISF-Clalit. Clients of Clalit can increase their medical coverage and improve their options by purchasing additional insurance such as golden and platinum cards.

**Sick Fund Meuhedet:** There are 17 centers/clinics providing healthcare services for the EJ population. These centers are privately owned and contracted by ISF-Meuhedet. The largest healthcare provider in EJ is Al-Hayat centers. The centers have around forty thousand members in addition to members of Arab companies, special cases, schools and other organizations. The hospitals under agreement with Meuhedet in EJ are MisgavLadach, ShaareiZedek, Hadassah, Augusta Victoria, Al-Makassed, and Saint John.

**Sick Fund Leumit:** There are 9 centers/clinics provide healthcare services for EJ population. These centers are private owned and contracted by ISF-Leumit. **Sick Fund Maccabi:** There are 8 centers/clinics provide healthcare services for EJ population. These centers are private owned and contracted by ISF-Maccabi.

### **2.4.3 Infant healthcare**

Jerusalem Israeli Municipality operates 7 clinics for infant healthcare

in the Palestinian neighborhoods of Jerusalem, compared to 27 in the Israeli neighborhoods. Three clinics in Israeli neighborhoods also serve residents of the nearby Palestinian neighborhoods. In Kafr 'Aqab, beyond the Separation Barrier, an infant healthcare clinic is operated by a Health Ministry franchisee rather than by the Municipality (East Jerusalem: Facts and Figures, 2017)

#### **2.4.4 United Nation Refugees and Work Agency (UNRWA)**

UNRWA is providing health care only to refugees with a refugee certificate and they do not operate according to Israeli regulations but cooperate with the Palestinian Authority in the West Bank (Kunbar, 2019).

UNRWA is the only organization that provides a relatively comprehensive PHC to refugees living in East Jerusalem. UNRWA runs three health centers; 2 inside the municipality boundaries (Shufat and Al-Zaweeh) and one outside the boundaries (Qalandia). UNRWA clinics provide maternal and child care, preventive and curative care, and emergency services.

#### **2.4.5 Palestinian NGOs health centers**

There are several Palestinian non-governmental organizations providing health care services for Palestinians in EJ. These are as follow:

**Patients Friends Society:** The Society is a registered non-profit charity located within Augusta Victoria Hospital on the Mount of Olives. The society is dedicated to providing public health services for Palestinian women through health awareness activities, education, psychosocial support and counseling, early detection of disease through affordable health screening examinations.

**Makassed Society -Austrian Clinic:** Al Aqsa Mosque Clinic, formerly known as the Austrian Clinic. The Clinic provides services to the residents and visitors of the old city of Jerusalem. The clinic members account for 1400 persons. Clalit contracts Makassed Society Clinic.

**Palestinian Red Crescent Clinics:** There are three clinics run by the Palestinian Red Crescent Society (PRCS). The first is the Bab Al-Sahira (Herod's Gate) Clinic. It offers healthcare to pregnant women before and after delivery. It also has a maternal child health program. The immunization program is in line with the World Health Organization (WHO) guidelines. The second clinic is located at the heart of the old city of Jerusalem near the Holy Al-Aqsa Mosque. In addition to the pregnant women and maternal childcare services, it offers general medicine, emergency and first aid, X-Ray,

Laboratory and Dental Clinic. The third clinic is located in Kufr Aqab and offers obstetrics and gynecology care beside emergency services.

**Arab Health Centre:** Located in the center of the City in Sultan Suleiman Street. The Centre mainly provides primary care services. It also provides gynaecology, surgical care, general medicine, emergency, dental services and diagnostic services including laboratory and imaging services.

**St. Benedict's Polyclinic:** It is located in the old city of Jerusalem and offers general and some specialized medical services. In addition, the clinic provides laboratory and dentistry services.

**Armenian Health Services Centre:** The center is located inside the Armenian monastery and it provides its health services to the Armenians from inside and outside the monastery.

#### **2.4.6 Mental health services**

Since 2015, hospital and ambulatory mental health services responsibility transferred to the health funds (Aviram & Azary-Viesel, 2018). However, there are several obstacles face the ambulatory mental services among which: (1) services is not distributed equally among all of the regions and among the various population groups, (2) there is no common agreement regarding the nature of problems requiring professional intervention by the mental health services, the methods of intervention and their duration, and who is appropriate and authorized to treat persons with mental illness (general practitioner, psychiatrist, psychologist, social worker, occupational therapist, nurse, or others), (3) the budget allocated for mental health services should be handled as it would in any other medical specialization, and that the use of these additional funds should be decided for by the health funds, (4) availability and accessibility of mental health services among certain population such as Arab is not achieved (Aviram & Azary-Viesel, 2018).

It is worth mentioning that the average duration of ambulatory mental health treatment is nine sessions (encounters) per adult and 12 encounters per child. Moreover, drug addictions services remained under IMOH Health groups (Aviram & Azary-Viesel, 2018).

East Jerusalem is home to 6150 at-risk children; the rate of family violence is rising. About 71 East Jerusalem children were sent to institutions in the north of the country in 2010, owing to a lack of suitable frameworks in Jerusalem for Arab children (The Association for Civil Rights in Israel, 2012).

In East Jerusalem, there are six specialized psychological centers: Four Arab run centers; Palestinian Counseling Center, Spafford Children center, Hadi center for support and counseling, and Al-Majd for psychological counseling and one Israeli in East Jerusalem (Hadasah Mount Scopus) and two main centers in West Jerusalem (Natan & Hadasah-Ein Karim) that serve as counseling centers.

**Palestinian Counseling Center:** The Palestinian Counseling Center is a non-governmental organization that provides comprehensive services in the field of mental health. The center services includes therapy, psychological counseling, socio-educational services to prevent the development of psychological problems, capacity building and consultations to organizations and individuals working in mental health. In addition, the center plays a big role in lobbying and advocacy to influence legislation and policies that enhance the right to a state of mental wellbeing in Palestine.

**Spafford Children's Center:** The Spafford Children's Center (SCC) is a charitable institution aimed for a holistic approach to child health through the provision of medical and preventative care, as well as psychological, social and educational support. In addition, SCC provides speech and play therapy for children as well as an empowerment program for mothers. A team of clinical and educational psychologists and special education therapists work with children from 4 to 19 years of age who have school and behavioral problems. In addition, they provide counseling for the parents.

**Al-Majd (glory of the warm house) Center:** The work of the mental health clinic is to provide psychological treatment services for people with mental disorders and includes psychiatric treatment, crisis intervention, personal, marital, family, group therapy, follow-up, support and maintenance. The services provided for all age groups.

**Hadi Center for Support and Counseling:** The center provides services and psychological, social and moral support to families that have individuals suffering from psychological disorders. The center has individual and group therapy programs, in addition to guidance and support for families in solving their problems.

## **2.4.7 Rehabilitation and physiotherapy centers services**

Besides the rehabilitation and physiotherapy services that are available in hospitals and healthcare centers, there are 6 specialized centers/ institutions for rehabilitation and physiotherapy in EJ. These are Jerusalem Princess Basma Rehabilitation Centre, Elwyn- El Quds, Healing

Hands Center, Specialty Center, Horizon Center and Rand Institution.

**Elwyn -Al Quds:** Elwyn-Al Quds provides its services for individuals with disabilities from birth throughout their lives, as needed. It has three branches in the Old City of Jerusalem, Beit Hanina and Ras Al-Amud. Elwyn has several programs for different age groups. These services are the early intervention program for infants and toddlers (six months to three years of age) with severe developmental disabilities who receive the entire range of physical, occupational and speech therapy treatments, and the inclusive children's day care program. The inclusive children's day care program serves infants and toddlers (birth to three years of age) who are developmentally at risk, together with children who do not have disabilities. In addition, Elwyn has a special education school for children (3-21 years old) with severe physical and developmental disabilities and occupational training center for adults above the age of 21 with mild to moderate developmental disabilities.

Moreover, there is a therapeutic program to enhance quality of life for adults over 21 who have severe developmental and physical disabilities and rehabilitation program for seniors (over 45 years old) who have shown functional regression.

**Rand Institution:** The institution is located in Beit Hanina and it takes care of people with special needs who have been diagnosed with simple intense or deep mental retardation. It is affiliated to the Ministry of Welfare and Social Services to provide services for Jerusalem people. It has residential houses containing rooms for overnight stay, a room for providing various treatments, and a hall for providing educational enriching activities. The institution provides rehabilitation services: physical therapy, occupational therapy and speech, Psychological, therapeutic and behavioral services, and recreational services: games, trips, and other events.

**The Jerusalem Princess Basma Centre:** The centre was established in 1965 as a home for children with physical disabilities. In 1993, the centre was identified as one of the four National Referral/ Resource Centres for the growing Community Based Rehabilitation (CBR) structure in Palestine. The Centre provides services to children with disabilities and their families from East Jerusalem, and the West Bank. It also provides highly specialized services for the hearing-impaired children of East Jerusalem. The Autism Spectrum Disorders (ASDs) is one of the most important programs of the centre. Admitted children receive occupational therapy, speech therapy and psychotherapy, as well as treatment sessions at the sensory room, which is a unique service provided only at Princess Basma Centre.

**Healing Hands Center:** The Center has two branches in EJ and offers rehabilitation and physiotherapy services for private and referred patients from ISFs. The center provides care for patients with musculoskeletal problems (strain and post fractures)

**Specialty Center:** The Center is located in EJ and offers physiotherapy services for private and referred patients from ISF. The center provides care for patients with neurological and musculoskeletal problems.

**Horizon Center:** The center is located in EJ and offers physiotherapy, sensory and rehabilitation services for private and referred patients from ISFs. The center provides care for patients with cerebrovascular accidents, musculoskeletal and neurological problems.

## **2.5 East Jerusalem health sector strategy and plan**

Under the patronage of the Palestinian Presidency Office with wide participation of stakeholders, a sectoral development plan was developed for East Jerusalem in 2018 (Jerusalem Affairs Unit, 2018). The health sector in the EJ was a key component of the strategic development plan 2017-2022. The plan identified key strategic directions in the health sector in the next 5 years and illuminated needed programs for health development in EJ. The first strategic direction is establishing a network of primary health and public health services. This will be achieved through developing the infrastructure of the health centers and providing public health services. Second direction is developing comprehensive hospital care services in EJ. This is possible through expanding the capacity, types and quality of services to contribute to the localization of tertiary care in Palestine. The third direction is improving the quality of services including building the capacity of human resources and developing health information and surveillance systems. Mental health services are the fourth strategic area identified for development. This includes developing the infrastructure for services delivery as well as developing the capacities of services providers. Another strategic direction is enhancing the accessibility of marginalized groups and people with special needs to specialized services. This induced mother and child healthcare, geriatrics care, rehabilitation services, and support to those without health insurance coverage. Another direction is developing emergency services and patient transfer is another area for work. Lastly, developing the capacities of human resources in the health sector, health education and scientific research.

## **3 Methods**

### **3.1 Aim and objectives of the study**

The overall aim of the study is to describe the provision of health services and some health indicators of the population in EJ. The results can be used to serve in the following activities: (1) identify health services needed (2) health planning and evaluation (3) decision making at both institutional and policy levels.

The objectives of this study are:

1. to assess some health conditions of EJ population,
2. to describe EJ health service institutions including types of services provided, capacities, utilization patterns (access to services and waiting time, etc.), patient satisfaction, hindering factors and challenges that face health institutions and their customers.

### **3.2 Study design**

In order to achieve the aim of the study mixed research approaches were used. A quantitative design was utilized to assess EJ population health conditions, patient satisfaction survey and the supply of health care services including capacity of institutions and available resources, as well as services utilization. In addition to that, a qualitative design was used to complement data collection and to understand the views of providers about provided services, needs and challenges that face the institutions and customers.

### **3.3 Study setting & target population**

East Jerusalem population is the target population, in addition to healthcare institutions: EJ hospitals and ambulatory health services such as primary health care centers, mental health, and physiotherapy and rehabilitation centers (Israeli sick funds, non-governmental and private health centers that are contracted by ISF). The boundaries of the study are J1 localities (according to PCBS, 2013) except Shu'fat Camp. In addition, KufrAqab was included in the study. The selection was based on the project mandate and willingness of institutions to provide data.

### **3.4 Study sample**

For the household survey, geographic sample distribution was designed using a stratified sampling approach. Unfortunately, PCB does not publish

estimates of population per Palestinian Neighborhoods inside Jerusalem J1. Therefore, to overcome the lack of information on the distribution of the Palestinian population in EJ, the project team decided to use the outline of residential buildings in EJ as a proxy for the number of households. The number of residential buildings in EJ was then used in a stratified sampling approach to determine the number of HH surveys within each EJ neighborhood necessary to produce statistical summaries with a maximum error of 9% or less at the 95% confidence level. The total number of surveys that required to produce the desired statistics was 3,747 HH survey distributed over 15 residential neighborhoods (table 1). The total number of people in the surveyed houses was 16,433 people.

Table 1: The total number of households and the estimated sample size distributed over 15 residential neighborhoods

Zone ID	Neighborhood Name	Sample Size	Accuracy	Confidence	Total Number of Households	Sample Size
1	Al Sawahreh Al Gharbia	143	8%	0.95	1699	143
2	Ath Thuri	375	5%	0.95	2099	375
3	Beer Ouna	60	9%	0.95	126	60
4	Beit Safafa	194	7%	0.95	2205	194
5	Bet Hanina	258	6%	0.95	3534	258
6	Issawiyeh & Sheikh Jarah	210	6%	0.95	2605	210
7	Jabal Al Mukabbir	130	8%	0.95	3259	130
8	Jerusalem old city surrounding area	955	3%	0.95	10623	955
9	Kafr Aqab	290	5%	0.95	2710	290
10	old city	248	6%	0.95	4101	248
11	Sharafat	173	6%	0.95	410	173
12	Shufat	230	6%	0.95	1895	230
13	Silwan	121	9%	0.95	2288	121
14	Sur Bahir	240	6%	0.95	2771	240
15	Um Tuba	120	8%	0.95	874	120
Total	EJ	3747	2%	0.95	41199	3747

Jerusalem old city surrounding areas includes the neighborhoods of Wadi El Joz, Salah Eldin/Bab Elshehara, Mosrara, Al Sowana, El Tur, Silwan and Ras El Amoud.

**Healthcare institutions:** A group of healthcare institutions (hospitals and health centers) was selected for this study in different areas of the city.

While all of the EJ hospitals were included in the study a convenient sample of ambulatory care centers from all the areas of the city (north, center and south) were selected. The type, ownership and number of selected institutions are provided in Table 2.

Table 2: Distribution of targeted healthcare institutions in EJ

Hospitals	Rehabilitation & physiotherapy centers	Non-governmental centers (NGOs)	Counseling Centers	ISF
5*	4	5	5	74**
5	4	2	4	20

\* Princess Basma Center is considered under physiotherapy &rehabilitation centers.

\*\*68 Private centers contracted by Israeli sick funds.

**For patient satisfaction:** A convenient sample of 330 patients that attended the targeted healthcare institutions during August-September 2019 were selected. On average 10 patients were selected from each institution. The inclusion criteria were patients above 18 years old who attended the targeted health institutions. Children, mentally and chronically ill patients and those unable to read and write were excluded from the survey.

### 3.5 Data collection tools

Household survey was developed in Arabic after consulting health experts from EJ healthcare institutions. In addition, five different questionnaires were developed by the researchers to collect data from the healthcare institutions and patients:

1. Hospital Survey (Annex A).
2. Healthcare Centers Survey (Annex B).
3. Psychological and Counseling Centers Survey (Annex C).
4. Rehabilitation and Physiotherapy Survey (Annex D).
5. Patient satisfaction Survey (Annex E).
6. Household Survey (Health related part)

### 3.6 Data collection and analysis

**Household Survey:** Trained data collectors conducted 3,747 HHS which include 16,433 individuals (approximately 4.7% of the total Palestinian population in EJ).

**Healthcare Institutions:** Semi-structured interviews conducted with managers of the healthcare institutions in their offices. Patient satisfaction

questionnaire distributed to patients after they received the health services and prior to leaving the healthcare institutions. Data related to health institutions services, capacities, resources and utilization were collected by researchers directly from health intuitions using data collection forms prepared for that purpose.

The researchers entered the collected quantitative data using the statistical package for social sciences version 18. Data were checked for entry errors (clearance of data). Descriptive statistics such as the frequencies, percentages, means and standard deviation were calculated. In addition, the qualitative data were analyzed using thematic content analysis approach. Several themes emerged for each open-ended question.

### **3.7 Ethical consideration and permissions**

A permission letter for conducting the study was sent by the Union of Charitable Societies to all selected healthcare institutions before data collection started. During HHS and the interviews with customers/patients, the data collectors informed the participants about the aim of the study and assured them the confidentiality of the information provided and that will be only used for the purpose of the study purpose. In addition, the permission of all the interviewed personnel from the targeted health institutions (administrators, managers, patients) was obtained orally before data collection.

## 4 Results and Discussion

### 4.1 EJ Health conditions and selected indicators

The data about the reported health conditions is provided in table 3. A total of 16057 participants were surveyed. About 10% of the participants indicated that they are with pre-existing health conditions. Most of the (98.4%) children ( $\leq 18$  years) are without any pre-existing health conditions. The main two health conditions children suffered of pulmonary (0.50%) and cardiovascular diseases (0.30%). Regarding adult participants while 87.67% had no pre-existing health problems, 12.33% indicated health problems as follows: The two main health problems among adults are diabetes (4.32%), and cardio-vascular and hypertension (2.84%) followed by kidney problems 1.19%. Mental disorders are common among adults 0.97%, although we believe that it is much higher than reported. Other health issues indicated by adult participants are rheumatoid arthritis 0.63%, peptic ulcer 0.69% pulmonary disease 0.63%, high cholesterol 0.03%, cancer 0.36%, back pain 0.2%, genetic related problems 0.2% and hormonal disorders 0.02%.

Table 4 shows that residents of the old city are with the worst health conditions among localities of East Jerusalem, where about 19.7% indicated having a health problem mainly due to chronic diseases including 3.5% with cardiovascular, 3.4% diabetes and 2.3% pulmonary problems, 1.8% with peptic ulcer, 1.4% high blood pressure, 1.6% back pain/spinal injury and 1.4% rheumatoid arthritis, hormonal disorders 1.2%, and 0.9% with cancers, and 0.5% psychological/ mental disorders. Kufr Aqab is in the second place with 13.6% indicated health problems including 3.3% diabetes, 2.2% high blood pressure and 2% cardiovascular problems, 1.7% Rheumatoid arthritis and 1% back pain/spinal injury problems, 0.7% psychological problems, and 7% hormonal disorders. A group of localities in different regions of EJ have similar percentages of health problems. Jerusalem (Beit Maqdes), Beit Hanina, Athuri, Sur Bahir areas with about 11% reported health conditions. Most frequently reported health problems in EJ are diabetes and cardiovascular diseases, high blood pressure and Rheumatoid arthritis.

Table3: Reported health conditions by age groups of participants

Age groups	No pre-existing health condition	Cardio-vascular	Tumors/ Cancer	Peptic Ulcer(s)	Diabetic	High Blood Pressure	Pulmonary Disease	Back Pain/Spinal injury	Kidney Disease	Liver	High Cholesterol/ Triglycerides	rheumatoid arthritis	Psychological disorders	Genetic Disorders	Skin Disorders	Hormonal Disorders	Total
Less than 19 years (N)	3905	13	0	2	9	0	21	0	9	0	0	0	0	3	2	3	3967
(%)	98.4	0.3	0	0.1	0.2	0	0.5	0	0.2	0	0	0	0	0.1	0.1	0.1	100
Above 19 years (N)	10599	146	43	84	522	197	80	3	144	31	4	76	117	29	14	1	12090
(%)	87.67	1.21	0.36	0.69	4.32	1.63	0.66	0.02	1.19	0.26	0.03	0.63	0.97	0.24	0.12	0.01	100.00
Overall total	14504	159	43	86	531	197	101	3	153	31	4	76	117	32	16	4	16057
Overall %	90.33	0.99	0.27	0.54	3.31	1.23	0.63	0.02	0.95	0.19	0.02	0.47	0.73	0.20	0.10	0.02	100.000

Table 4: Reported health conditions by area of residence

Locality	No pre-existing health condition	Cardio-vascular	Tumors/Cancer	Peptic Ulcer(s)	Diabetic	High Blood Pressure	Pulmonary Disease	Thalassemia	Back Pain/ Spinal injury	Kidney Disease	Liver	High Cholesterol/ Triglycerides	rheumatoid arthritis	Psychological disorders	Genetic Disorders	Skin Disorders	Hormonal Disorders	Total
Umm Tuba	N 507	1	1	6	21	4	2	0	5	0	1	4	2	0	0	0	1	555
	%	91.4%	0.2%	0.2%	1.1%	3.8%	0.7%	0.4%	0.9%	0.0%	0.2%	0.7%	0.4%	0.0%	0.0%	0.0%	0.2%	100.0%
Sur Bahir	N 993	6	1	7	49	17	2	0	7	1	0	11	9	0	3	0	5	1111
	%	89.4%	0.5%	0.1%	0.6%	4.4%	1.5%	0.2%	0.6%	0.1%	0.0%	1.0%	0.8%	0.0%	0.3%	0.0%	0.5%	100.0%
Silwan	N 439	1	1	1	16	4	4	0	3	1	0	3	5	0	0	0	0	478
	%	91.8%	0.2%	0.2%	3.3%	0.8%	0.8%	0.0%	0.6%	0.2%	0.0%	0.6%	1.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Shu'fat	N 934	6	2	2	35	8	7	0	8	2	0	3	10	1	0	0	0	1018
	%	91.7%	0.6%	0.2%	3.4%	0.8%	0.7%	0.0%	0.8%	0.2%	0.0%	0.3%	1.0%	0.1%	0.0%	0.0%	0.0%	100.0%
Sharafat	N 669	9	2	0	11	5	2	0	0	3	0	0	2	2	3	0	0	708
	%	94.5%	1.3%	0.3%	1.6%	0.7%	0.3%	0.0%	0.0%	0.4%	0.0%	0.0%	0.3%	0.3%	0.4%	0.0%	0.0%	100.0%
Old City	N 712	31	8	16	30	12	20	0	14	3	0	5	12	4	0	4	11	882
	%	80.7%	3.5%	0.9%	1.8%	3.4%	2.3%	0.0%	1.6%	0.3%	0.0%	0.6%	1.4%	0.5%	0.0%	0.5%	1.2%	100.0%
Kafr Aqab	N 990	23	2	4	38	25	7	0	12	4	1	2	19	8	3	0	8	1146
	%	86.4%	2.0%	0.2%	3.3%	2.2%	0.6%	0.0%	1.0%	0.3%	0.1%	0.2%	1.7%	0.7%	0.3%	0.0%	0.7%	100.0%

Jerusalem old city surrounding areas	N	3643	8	1	4	18	7	3	0	6	3	0	3	1	0	1	0	0	9	4060
	%	89.7%	0.7%	0.3%	0.6%	3.7%	1.5%	0.6%	0.0%	1.2%	0.2%	0.0%	0.4%	0.6%	0.2%	0.0%	0.0%	0.2%	0.0%	100.0%
Jabal al Mukabbir	N	526	8	1	4	18	7	3	0	6	3	0	3	1	0	1	0	2	583	
	%	90.2%	1.4%	0.2%	0.7%	3.1%	1.2%	0.5%	0.0%	1.0%	0.5%	0.0%	0.5%	0.2%	0.0%	0.2%	0.0%	0.3%	0.0%	100.0%
Beit Safafa	N	831	7	1	2	16	5	1	0	9	3	0	1	5	3	2	0	0	886	
	%	93.8%	0.8%	0.1%	0.2%	1.8%	0.6%	0.1%	0.0%	1.0%	0.3%	0.0%	0.1%	0.6%	0.3%	0.2%	0.0%	0.0%	0.0%	100.0%
Beit Hanina	N	1075	8	3	4	50	13	12	0	15	1	0	5	8	0	2	0	0	1196	
	%	89.9%	0.7%	0.3%	0.3%	4.2%	1.1%	1.0%	0.0%	1.3%	0.1%	0.0%	0.4%	0.7%	0.0%	0.2%	0.0%	0.0%	0.0%	100.0%
Beir Ona	N	220	0	2	0	5	10	0	0	0	0	0	0	1	2	0	0	0	240	
	%	91.7%	0.0%	0.8%	0.0%	2.1%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.8%	0.0%	0.0%	0.0%	0.0%	100.0%
Ath Thuri	N	1491	19	4	5	52	16	9	3	16	2	0	14	18	5	2	0	3	1659	
	%	89.9%	1.1%	0.2%	0.3%	3.1%	1.0%	0.5%	0.2%	1.0%	0.1%	0.0%	0.8%	1.1%	0.3%	0.1%	0.0%	0.2%	0.0%	100.0%
Al- Sawahira	N	599	6	1	9	26	2	5	0	5	1	1	3	1	0	0	0	3	662	
	%	90.5%	0.9%	0.2%	1.4%	3.9%	0.3%	0.8%	0.0%	0.8%	0.2%	0.2%	0.5%	0.2%	0.0%	0.0%	0.0%	0.5%	0.0%	100.0%
Al 'Isawiya & esh Sheikh	N	875	4	3	1	14	10	1	0	3	0	0	4	0	0	0	0	5	920	
	%	95.1%	0.4%	0.3%	0.1%	1.5%	1.1%	0.1%	0.0%	0.3%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	100.0%
Total	N	14504	159	43	86	531	197	101	3	153	31	4	76	117	32	16	4	47	16104	
	%	90.1%	1.0%	0.3%	0.5%	3.3%	1.2%	0.6%	0.0%	1.0%	0.2%	0.0%	0.5%	0.7%	0.2%	0.1%	0.0%	0.3%	0.0%	100.0%

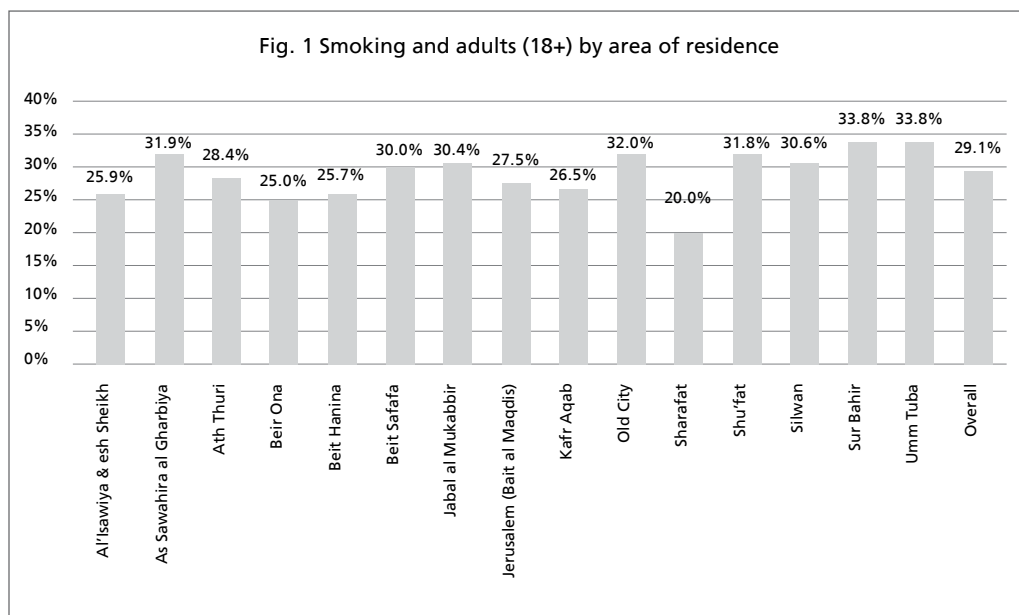
Jerusalem old city surrounding areas includes the neighborhoods of Wadi El Joz, Salah Eldin/Bab Elsaheira, Mosrara, Al Sowana, El Tur, Silwan and Ras El Amoud.

## 4.2 Smoking

Similar to many countries, in Palestine smoking tobacco is a serious public health issue. The survey showed that prevalence of smoking tobacco among adults above 18 years old was 29.0% and among children 1.4% (Table 5). If we look at smoking among adults (Figure 1), we can see that the highest percentage is reported in Sur Bahir and Um Toba (33.8%), Old City 32%, Sawahira al Gharbiya (31.9%), Shu'fat 31.8%, Silwan 30.6%, Jabal al Mukabbir 30.4%, and Beit Safafa 30%. The lowest percentage was reported in Sharafat 20%. The results of the 2011 STEPwise survey, the overall smoking prevalence (ages 15–64) is 20.2% (37.6% of males and 2.6% of females). Probably smoking among youth has been underreported as the survey was administered at the household. The prevalence of smoking among Palestinian youth (age 12-16 years) in the West Bank was estimated to be around 39% (Jawad et al, 2016). According to WHO observatory data, age standardized prevalence of current tobacco smoking among persons aged 15years and older in 2018, was in Israel 25.5%, Lebanon 42.6%, and Egypt 21.4% (WHO, 2018).

Table 5: Smoking percentage by age groups

Age Groups	Smoking			
	Yes	No	Total	%
Less than 19 years	79	5583	5662	1.40
"19 to 22"	342	1357	1699	20.13
"23 to 30"	1175	2258	3433	34.23
"31 to 40"	588	1116	1704	34.51
"41 to 50"	519	1182	1701	30.51
"51 to 65"	416	1074	1490	27.92
"66 to 75"	55	414	469	11.73
"76 to 130"	16	193	209	7.66
Above 18 years	3111	7620	10731	29.0
Overall	3190	13203	16393	19.46



### 4.3 Disability

The survey identified 249 persons among the population (16424) with at least one type of disability, indicating a percentage of 1.5 per 100 population (Table 6). The highest type is mobility impairment 0.7 (physical/ ambulatory disability 0.5%, related to accidents 0.1%, and mixed neurological/ ambulatory 0.1%), followed by vision 0.3%, then hearing 0.2%, neurological 0.1%, learning disability 0.1%, speech 0.1%. In Palestine the percentage of disability was 2.1% and in the West Bank was 1.8% in 2017 (PCBS, 2017). The results of the survey are very consistent with the previous data about disability in Jerusalem and the West Bank. As, the percentage of disability in Jerusalem was estimated 1.8% in 2017 (1.8% for age 18+), which is the lowest in Palestine (PCBS, 2017). In addition to that, the main type of disability in the survey was mobility similar to that in Palestine (PCBS, 2017).

Table 7 shows the percentage of disabilities by area. The highest percentage of disability 3.9% is reported in Kuf Aqab including, 1.4% ambulatory related disabilities, 1.0% vision, 0.8% learning disability, 0.3% speech, and 0.3% hearing disabilities. This is followed by Beir Ona 2.7%, including 1.17% ambulatory, 1.17% neurological, and 0.39% vision disabilities. Remaining areas with a considerable percentage of disability are Beit Hanina, Sharafat and Jabal al Mukabbir 1.7%, Ath Thuri 1.6%, Silwan 1.5%, and Jerusalem Old City surrounding area 1.4%. The other localities are with disability percentages between (1.0%-0.6%).

Table 6: Reported disability among survey participants by age groups

Age groups	Ambulatory/ physical	Vision	Hearing	Speech	Neurological	Learning Disability	Neurological & ambulatory	Accident related ambulatory	Total disability	Total participant
"1 to 5"	5	4	0	3	2	1	2	0	17	1798
"6 to 11"	2	1	0	2	0	0	2	1	8	1716
"12 to 15"	3	2	1	1	1	6	0	1	15	1242
"16 to 18"	2	0	1	0	1	2	2	0	8	936
"19 to 22"	3	0	0	1	1	4	0	3	12	1699
"23 to 30"	5	3	0	3	7	1	2	5	26	3434
"31 to 40"	5	0	1	2	2	2	1	4	17	1704
"41 to 50"	4	3	2	0	1	1	1	1	13	1701
"51 to 65"	16	10	3	2	1	0	0	1	33	1490
"66 to 75"	33	14	11	0	2	0	3	0	63	467
76 +	11	12	13	0	1	0	0	0	36	204
Total %	89 0.5%	49 0.3%	32 0.2%	14 0.1%	19 0.1%	17 0.1%	13 0.1%	16 0.1%	248 1.5%	16425

Table 7: Reported disability percentage by area of residence

Locality		Ambulatory	Vision	Hearing	Speech	Neurological	Learning Disability	Neurological and ambulatory	Accident related ambulatory	Disability	Without Disability
Umm Tuba	N	1	4	3	0	0	0	0	0	8	561
	%	0.2%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	98.6%
Sur Bahir	N	2	1	0	0	1	5	1	0	10	1109
	%	0.2%	0.1%	0.0%	0.0%	0.1%	0.4%	0.1%	0.0%	0.9%	99.1%
Silwan	N	1	1	1	1	2	1	1	0	8	511
	%	0.2%	0.2%	0.2%	0.2%	0.4%	0.2%	0.2%	0.0%	1.6%	98.5%
Shu'fat	N	11	0	3	0	1	0	0	0	15	1019
	%	1.1%	0.0%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	1.5%	98.3%
Sharafat	N	4	0	1	0	0	0	0	0	5	703
	%	0.6%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	99.3%
Old City	N	12	2	4	1	0	0	1	2	22	926
	%	1.3%	0.2%	0.4%	0.1%	0.0%	0.0%	0.1%	0.2%	2.3%	97.7%
Kafr Aqab	N	9	12	3	4	7	3	3	4	45	1102
	%	0.8%	1.0%	0.3%	0.3%	0.6%	0.3%	0.3%	0.3%	3.9%	96.1%
Jerusalem Old City surrounding area	N	16	10	10	5	0	3	3	6	53	4087
	%	0.4%	0.2%	0.2%	0.1%	0.0%	0.1%	0.1%	0.1%	1.2%	98.6%
Jabal al Mukabbir	N	4	4	1	0	1	0	0	0	10	591
	%	0.7%	0.7%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%	1.8%	98.3%
Beit Safafa	N	3	1	0	1	0	0	0	4	9	879
	%	0.3%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.5%	1.0%	99.0%
Beit Hanina	N	9	6	0	0	2	3	1	0	21	1184
	%	0.7%	0.5%	0.0%	0.0%	0.2%	0.2%	0.1%	0.0%	1.7%	98.2%
Beir Ona	N	3	1	0	0	3	0	0	0	7	250
	%	1.2%	0.4%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	2.8%	97.3%
Ath Thuri	N	11	5	1	2	2	2	3	0	26	1660
	%	0.7%	0.3%	0.1%	0.1%	0.1%	0.1%	0.2%	0.0%	1.6%	98.5%
Al- Sawahira al Gharbiya	N	2	1	1	0	0	0	0	0	4	658
	%	0.3%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	99.4%
Al 'Isawiya & esh Sheikh	N	1	1	4	0	0	0	0	0	6	935
	%	0.1%	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	99.4%
Overall	N	89	49	32	14	19	17	13	16	249	16175
	%	0.5%	0.3%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	1.5%	98.4%

#### 4.4 Health insurance status

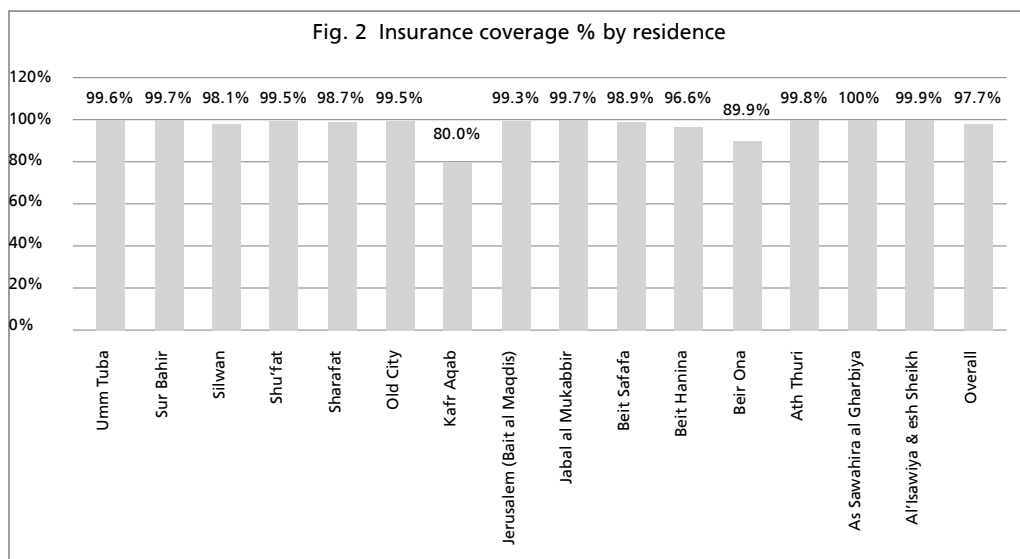
The overall insurance coverage of the participants is 97.7% consists of 96.8%

Israeli insurance, 0.4% Palestinian governmental insurance, 0.3% private and 0.2% UNRWA insurance scheme (table 8). In 2013, around 92.4% of individuals in Jerusalem Governorate reported having health insurance (97.1% in Area J1 and 84.8% in Area J2). In J1, 95.5% reported using Israeli insurance (Kupat Holim/Sick funds) compared with 6.6% in Area J2 (PCBS, Jerusalem yearbook, 2017).

The lowest insurance coverage reported in Kafr Aqab 80.0% consisted of 77.7% Israeli government and 2.3% private insurance. Beir Ona has the lowest Israeli insurance rate of 60.7% and overall insurance coverage of about 90% including 9.3% covered by UNRWA. The rest of localities insurance coverage ranged between 96.6% in Beit Hanina to 100% coverage in Al- Sawahira al Gharbiya participants (Figure2).

Table 8: Health insurance status of participants (%)

Localities	Uninsured	Israeli Government Insurance	Palestinian Governmental Insurance	UNRWA	Private Sector	Total insurance coverage
Umm Tuba	0.4%	99.6%				99.6%
Sur Bahir	0.3%	99.7%				99.7%
Silwan	1.9%	97.9%	0.2%			98.1%
Shu’fat	0.5%	99.5%				99.5%
Sharafat	1.3%	98.6%	0.1%			98.7%
Old City	0.5%	99.4%			0.1%	99.5%
Kafr Aqab	20.0%	77.7%		0.1%	2.3%	80.0%
Jerusalem old city surrounding areas	0.7%	99.2%			0.0%	99.3%
Jabal al Mukabbir	0.3%	99.7%				99.7%
Beit Safafa	1.1%	98.8%	0.1%			98.9%
Beit Hanina	3.4%	93.8%	1.5%	0.4%	0.8%	96.6%
Beir Ona	10.1%	60.7%	17.9%	9.3%	1.9%	89.9%
Ath Thuri	0.2%	99.6%		0.2%	0.1%	99.8%
AL- Sawahira al Gharbiya		99.8%	0.2%			100.0%
Al ‘Isawiya & esh Sheikh	0.1%	99.7%	0.2%			99.9%
Overall	2.3%	96.8%	0.4%	0.2%	0.3%	97.7%



## 4.5 Occupation status

The occupation status of the survey participants is provided in Table 9. Full-time employment among adults above 18 years old was estimated to 40.4%, and part time employment percentage was about 13.5%. This shows that about 54.0% of the participants' age 19+ in the survey are employed. About 2.0% of the adults are entrepreneurs (1.6%) have their own businesses and 0.3% work at family businesses. Meanwhile 2.84% of children under the age of 18 are partially or fully employed. In comparison, the labor force participation rate of individuals aged 15 years and above in the Jerusalem governorate was 30.4% in 2017 (56.4% for males and 6.7% for females) (PCBS, 2018). The unemployment rate in Jerusalem governorate of individuals aged 15 years and above was 11.6 percent in 2017 (PCBS, 2018).

Unemployment reasons were indicated as follow: 26.5%, of the participants age 18+ were housewives, 3.0% are unemployed because of age, 2.0% doesn't want to work, 1.7% are looking for a job, 1.2% retired, 1.4% because of health-related, and 0.5% for social reasons.

It worth saying that 95% of participants aged 18 or less were students and 7.7% of the adults (+18 years) indicated that they are studying.

According to Jerusalem Institute for Policy and Research, in 2014, the rate of participation in the labor force for Arab women aged 25 to 64 in Jerusalem is very low (18%), and significantly lower than the rate for Arab men (83%). The main sectors of the economy in which Arab persons employed in Jerusalem worked were trade (17%), construction (13%), and human health and social work services (11%). Among employed Arab women, the very high percentage of those employed in education stands out (44%) as

does the percentage of those employed in human health and social work services (28%). The extent of poverty in the Arab population of Jerusalem was considerably higher than in the Jewish population: 82% of the Arab population lived below the poverty line, compared with 28% of the Jewish population.

Table 10 shows the employment status by localities among adults above 18 years old. It is obvious that the lowest employment percentage is in Silwan 41% including 30.6% full-time and 9.6% part-time basis employment. Followed by Kufr Aqab 43.4% (41.9% full-time and 1.4% part-time) employment rate. Next is Beir Ona 48.3% (42.6% full-time and 5.7% part-time), Jabal al Mukabbir 48.5% (33.9% full-time and 14.6% part-time), Shu’fat 50.1% (33.8% and 16.2% part-time) Old City 50.2% (42.4% full-time and 7.8% part-time).

The highest employment percentages (66.6%) were reported in Beit Safafa (59.9% full-time and 6.7% part-time), followed by Sharafat 66.2% (55.4% full-time and 10.8% part-time), then Um Tuba 62.4% (35.3% full-time and 27.1 part-time) percentage. The percentage of employment in the rest of localities ranged between 50% to 58.5%.

Table 9: Occupation status of the survey participants

Age groups	Child (Less than 19 years)	%	Adult (19 years and above)	%	Overall	%
Full time employment	30	0.83	4324	40.4	4354	30.37
Part time employment	73	2.01	1442	13.5	1515	10.57
Family based unpaid job	9	0.25	34	0.3	43	0.30
Owens Business	5	0.14	176	1.6	181	1.26
Actively searching for employment	19	0.52	187	1.7	206	1.44
Health related unemployment	6	0.17	149	1.4	155	1.08
Does not work for social reasons	1	0.03	50	0.5	51	0.36
Does not work because of old age	3	0.08	316	3	319	2.23
Student	3438	94.68	825	7.7	4265	29.75
Vocational training	7	0.19	61	0.6	68	0.47
Retired	0	0	133	1.2	133	0.93
Does not want to work	26	0.72	187	1.7	213	1.49
House wife	14	0.39	2818	26.3	2832	19.76
Total	3631	100	10702	100	14335	100.00

## 4.6 Drug abuse

Out of 3747 households surveyed, (89.24%) believed that drug abuse is a common social problem and only 6% who don't think that it is not a social problem in East Jerusalem. There are local differences in this perception (Fig 3), the highest percentage of participants who believed it is a social problem was reported in Shufat 99.4%, followed by Jerusalem old city surrounding areas, 97.17%, Old City 95.56%, Silwan 94.21%, Um Toba 91.67%, Sawahira al Gharbiya 90.2%, Beir Ona 90.0%. The least reported was in Isawiya & Sheikh Jarah 56.67%.

Moreover, 53.24% of respondents thought that drug trading and/or abuse is taking place inside or near their neighborhood, about 25% don't think so. The highest percentage was reported in Silwan 83.47%, followed by 66.48% in Jerusalem old city surrounding areas, 64.48% Kuf Aqab, 58.26% Shufat, 47.98% in the Old City and similarly in Sharaft, 46.85% Shawahreh Gharbiya, and 43.33% in Sur Bahir. The lowest was reported in Isawiya & Sheikh Jarah 9.05% (Fig 4).

About 10% of them indicated that at least one member of their families been approached and/or harassed by individual trading or using drugs. The highest percentage was reported in Beit Safafa 23.2%, Old City 16.53%, Silwan 14%, Beit Hanina 13.95%, Sharafat 13.29%, 8.90% Jerusalem old city surrounding areas, 8.3% Um Toba, 8.27% Al-Thuri, 8.28% Kafr Aqab. The lowest was reported 1.9% Isawiya & Sheikh Jarah (Fig 5).

Table 10: Occupation status of the survey participants (above 18 age) by locality

Locality	N	121	93	0	0	0	4	2	0	9	18	1	1	6	88	343	Total
Umm Tuba	%	35.3%	27.1%	0.0%	0.0%	0.0%	1.2%	0.6%	0.0%	2.6%	5.2%	0.3%	0.3%	1.7%	25.7%	100.0%	
Sur Bahir	N	247	109	2	19	8	8	6	1	13	45	3	4	11	205	673	
	%	36.7%	16.2%	0.3%	2.8%	1.2%	1.2%	0.9%	0.1%	1.9%	6.7%	0.4%	0.6%	1.6%	30.5%	100.0%	
Silwan	N	99	31	1	16	7	7	7	3	24	23	1	2	5	105	324	
	%	30.6%	9.6%	0.3%	4.9%	2.2%	2.2%	2.2%	0.9%	7.4%	7.1%	0.3%	0.6%	1.5%	32.4%	100.0%	
Shu'fat	N	229	110	1	9	11	9	9	3	12	69	2	7	9	206	677	
	%	33.8%	16.2%	0.1%	1.3%	1.6%	1.6%	1.3%	0.4%	1.8%	10.2%	0.3%	1.0%	1.3%	30.4%	100.0%	
Sharafat	N	297	58	0	5	7	7	10	0	5	75	0	14	0	65	536	
	%	55.4%	10.8%	0.0%	0.9%	1.3%	1.3%	1.9%	0.0%	0.9%	14.0%	0.0%	2.6%	0.0%	12.1%	100.0%	
Old City	N	267	49	1	11	10	10	28	8	39	20	9	6	22	159	629	
	%	42.4%	7.8%	0.2%	1.7%	1.6%	1.6%	4.5%	1.3%	6.2%	3.2%	1.4%	1.0%	3.5%	25.3%	100.0%	
Kafr Aqab	N	319	11	6	10	24	24	18	0	62	46	6	7	3	249	761	
	%	41.9%	1.4%	0.8%	1.3%	3.2%	3.2%	2.4%	0.0%	8.1%	6.0%	0.8%	0.9%	0.4%	32.7%	100.0%	
Jerusalem old city surrounding areas	N	977	460	3	48	37	37	29	11	73	201	14	27	44	715	2639	
	%	37.0%	17.4%	0.1%	1.8%	1.4%	1.4%	1.1%	0.4%	2.8%	7.6%	0.5%	1.0%	1.7%	27.1%	100.0%	
Jabal al Mukabbir	N	123	53	5	12	2	2	4	1	6	24	2	8	10	113	363	
	%	33.9%	14.6%	1.4%	3.3%	0.6%	0.6%	1.1%	0.3%	1.7%	6.6%	0.6%	2.2%	2.8%	31.1%	100.0%	
Beit Safafa	N	376	42	2	4	10	10	5	0	13	55	2	11	5	103	628	
	%	59.9%	6.7%	0.3%	0.6%	1.6%	1.6%	0.8%	0.0%	2.1%	8.8%	0.3%	1.8%	0.8%	16.4%	100.0%	



Fig. 3 Respondents who think that drug abuse is a common social problem in East Jerusalem

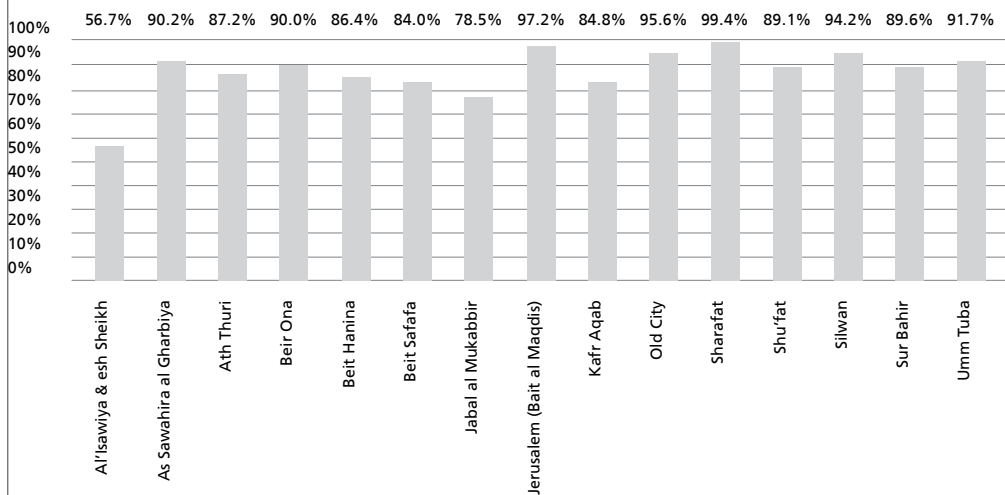


Fig. 4 respondents who think that drug trading and/or abuse is taking place inside or near your neighborhood

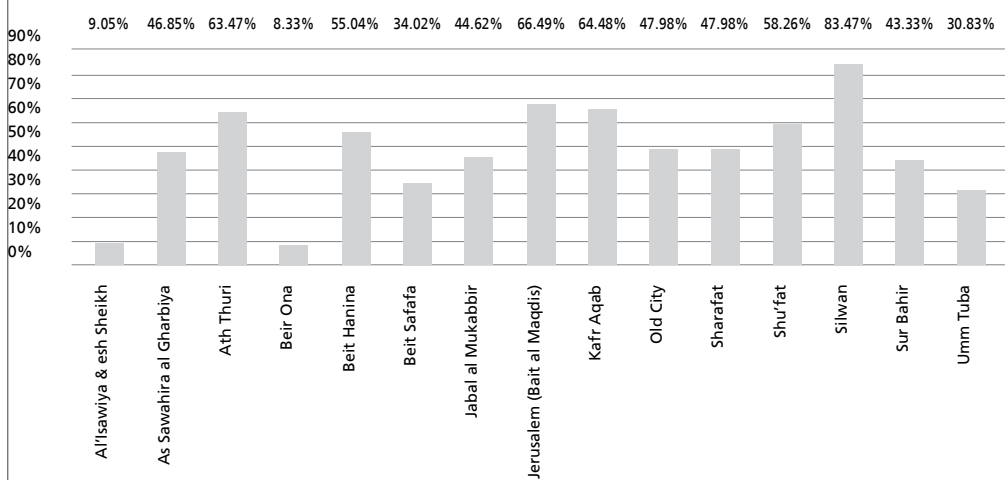
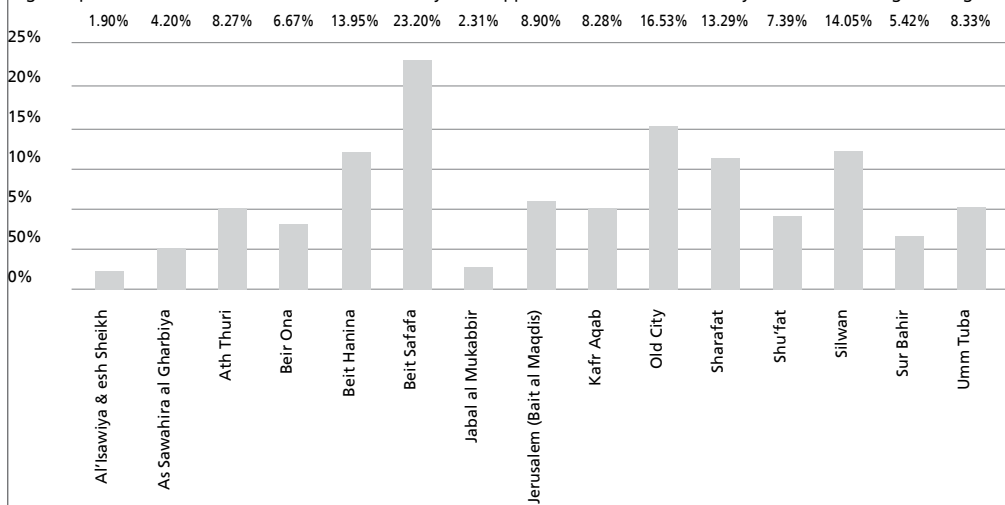


Fig. 5 Rspndents who think a member of the family been approached and/or hurrased by individual trading or using drugs



## **5 East Jerusalem Hospital Services**

### **5.1 Use of information technology in hospitals**

As provided in Table 11 an electronic medical records system has been introduced in the five EJ hospitals where it is fully available in Makased and Augusta Victoria hospitals. Whereas, management information system for administrative services is fully available in all hospitals except in the Red Crescent where it is in process. Except for the St. Joseph hospital, all hospitals indicated they have an operational website with information about provided health services either fully or partially. Except for one hospital (St. John), all hospitals provide Wi-Fi services free of charge for patients and visitors. Three hospitals provide internet services for personnel.

### **5.2 Hospitals' capacity and utilization**

There are 651 hospital beds available in five East Jerusalem hospitals (Table 12). It is worth noting that the Jerusalem Princes Basma Rehabilitation Center (JPBRC) (24 beds) which is a rehabilitation center for children was not considered here, but in the relevant sector analysis. EJ hospitals serve all Palestinians living in the EJ and West Bank and Gaza Strip. The MoH report indicated a ratio of 16.2 beds per 100.000 population in Jerusalem Governorate in 2018 (MoH, 2018).

The average occupancy rate of EH hospitals was 90% except for ophthalmic St. John hospital with low occupancy rate (20%) and the average length of stay was 2.6 days. In comparison, the percentage of bed occupancy in MoH hospitals in the WB was 101.5% and the average length of stay was 2.2 days (MoH, 2018).

In 2018 80,717 patients were admitted to EJ hospitals, about 240,000 were treated in the outpatient clinics and 58,530 patients treated in the emergency rooms of these hospitals. In addition, 7,474 births and 16,365 surgical operations of different types were conducted in EJ hospitals.

### **5.3 Referrals to EJ hospitals**

EJ hospitals are important part of the Palestinian health care system and provide tertiary services. The MoH data shows that the number of referrals to EJ hospitals in 2018 was 43,256 cases, which is about 40% of referrals outside the MoH facilities (MoH report, 2018). The cost of these referrals was estimated to be 278,138,660 NIS, about 38% of the cost of the MoH outside referrals in 2018 (MoH, 2018).

## 5.4 Utilization of EJ hospitals by Jerusalemites

The percentage of Jerusalemites treated in EJ hospitals were 24% of inpatient admissions, 64.8% of outpatient visits, 91.3% of emergency department visits, and 90.3% of deliveries. Only the Red Crescent Maternity Hospital provides 95% of its services to EJ residents (Table 13).

## 5.5 Waiting time to receive services

Table 14 shows the average waiting time estimates for services provided by EJ hospital. Waiting time for admission in Augusta Victoria is at least two weeks, this is mainly due to the high demand on oncology related services provided at the hospital. St. Joseph's hospital waiting time is around one week also, probably due to high demand on some specialty surgical services provided by the hospital. This indicates a need for more hospital beds to respond to high demand on inpatient services, as the occupancy rate in EJ is about 90%.

The average waiting time for routine surgical operations is at least two weeks in most hospitals. While patients receive care in less than one-hour in emergency rooms in EJ hospitals, they wait for around 1.5 hours in outpatient clinics in most hospitals.

## 5.6 Radiology and imaging services

All types of essential radiology and imaging services such as x-ray, ultrasound, computed tomography (CT) scanning, magnetic resonance imaging (MRI), positron emission tomography (PET), echocardiography (ECHO), fluoroscope, and invasive radiology are available in EJ hospitals. Waiting time for most of these services is around one hour, except for specialized imaging such as PET and MRI around one day (Table 15).

## 5.7 Hospitals personnel by category

There are 2203 personnel, 2088 full-time (95.0%) and 115 part-time (5.0%), working at EJ hospitals (Table 16). There are 842 full-time nurses and midwives, 190 full-time general practitioners and residents, 46 part and 149 full-time specialist physicians. Moreover, there are 60 full-time and 22 part-time lab technicians, 37 full and 3 part-time radiology technicians, 1 part and 10 full-time physiotherapy and rehabilitation technicians. In addition, there are 8 part and 21 full-time emergency workers (Palestinian Red Crescent ambulance services), 2 part and 11 full-time social workers, 1 part and 25 full-time pharmacists, 1 part and 9 full-time nutritionists,

1 psychotherapist/counselor. , 39 full-time paramedical service workers, 8 part and 454 full-time administrative personnel, and 7 part and 229 full-time support service workers are available in EJ hospitals.

The results show that about 74% (1619) of the hospital workers carry West Bank identity cards. The percentage of employees from the West Bank is 50% in the Red Crescent to 86% in Augusta Victoria Hospital.

Table 11: Hospital electronic health information and communication system status 2019

Hospital	Patient electronic medical records system	Hospital management information system (admin services)	Hospital functioning and updated website	Hospital website with all information about services provided	Free internet connection for patients and visitors	Free internet connection for personnel
Red Crescent	PA	PA	FA	FA	FA	FA
Makassed	FA	FA	FA	FA	FA	NA
Augusta Victoria	FA	FA	PA	PA	FA	FA
St. Joseph	PA	FA	NA	NA	NA	NA
St. John	PA	FA	FA	FA	FA	FA

NA: Not available; PA: Partially available; FA: Fully available

Table 12: Hospital utilization statistics, 2018

Hospital	Bed No.	Bed occupancy rate (%)	Average length of stay	Admissions to hospital	Outpatient clinic visits	Operations	Births	Emergency room visits
Red Crescent	30	107.0	1.5	4110	51390	881	3049	6299
Makassed	260	84.5	4.6	16789	89271	9062	1232	24739
Augusta Victoria	171	106.0	2.9	22968	34426	1818	0	4558
St. Joseph	155	106.0	1.7	34853	19078	3754	3193	22844
St. John	35	20.0	2.1	1997	45000	850	0	90
Overall	651	90.0	2.6	80,717	239,165	16,365	7,474	58,530

Table 13: Number and percentage of patients Jerusalem ID holders from total patients per type of services 2018

Hospital	MoH referrals	Inpatient admissions			Outpatient clinic visits			Emergency Dept. visits			Births / delivery		
		ALL	EJ	%EJ	ALL	EJ	%EJ	ALL	EJ	% EJ	ALL	EJ	%EJ
Red Crescent	0	4110	3904	95.0	51390	48820	95.0	6299	5984	95.0	3049	2894	94.9
Makassed	10307	16789	4680	27.9	89271	63176	70.8	24739	24636	99.6	1232	1096	89.0
Augusta Victoria	3513	22968	1068	4.6	34426	605	1.8	4558	0	0	0	0	0
St. Joseph	999	34853	9356	26.8	19078	15262	80.0	22844	22844	100.0	3193	2760	86.4
St. John	3939	1997	389	19.5	45000	24612	54.7	90	0	0	0	0	0
Total	37,516	80,717	19,397	24.0	239,165	152,475	63.8	58,530	53,464	91.3	7,474	6,750	90.3

Table 14: Average waiting time for main services provided

Hospital	Admission (Day)	Surgical (Routine) Operations (Day)	Emergency room (hour)	Outpatient clinic (hour)
Red Crescent	0	5	0	1.5
Makased	1<	14	1<	1
Augusta Victoria	14-21	15-30	--	1.5
St. Joseph	7	14	1<	1<
St. John	0	14-21	1<	1.5

NA: Not available; NS: No services.

Table 15: Availability of radiology & imaging services in EJ Hospitals and estimated waiting time

Hospital	X-ray		Ultra Sound		CT scan		MRI		PET		ECHO		Fluoroscope		Invasive radiology	
	AV	WT	AV	WT	AV	WT	AV	WT	AV	WT	AV	WT	AV	WT	AV	WT
Red Crescent	✓	0	✓	0	X	X	X	X	X	X	X	X	X	X	X	X
Makassed	✓	0	✓	0	✓	3 hrs.	✓	1 Day	X	X	✓	<1 hrs.	✓	<1 hrs.	X	X
Augusta Victoria	✓	0	✓	0	✓	2 hrs.	X	X	✓	1 Day	X	<1 hrs.	X	<1 hrs.	X	X
St. Joseph	✓	0	✓	0	✓	1 hrs.	X	X	X	X	X	X	X	X	✓	<1 hrs.
St. John	X		✓	0	X	X	X	X	X	X	X	X	X	X	X	X

AV: Availability; WT: Waiting time to receive service (days/ hours).

Table 16: Hospital personnel by category 2018

Hospital	West Bank (%)	Nurses/ midwives		Laboratory technicians		Radiology technicians		Resident /GP		Medical Specialist		Social workers		Physiotherapy& rehabilitation technician		Counselor/ psychotherapist		Nutritionist		Administrative services		Support services		Emergency worker		Pharmacists		Other Paramedical personnel**		EJ Hospitals	Total	
		P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F					
Red Crescent	50.0	13	68	10	5	3	1	0	8	5	15	2	1	0	0	1	0	1	5	31	7	58	8	21	3			3		266		
Makassed	77.0	3	420		32		16		110		81		3		5		1		2		290		37				6			1006		
Augusta Victoria	86.0	3	153	1	13		8		34	20	21	5	1	3	0	0	0	4	3	57	0	42			1	11	1	29	410			
St. Joseph	76.0		144		10		10		33	21	17	1		2		0	1	1		60		65				3				378		
St. John	60.0	6	57	1	0	0	2	0	5	0	15	1						1	16		27					2	10	143				
Total	74.0	25	842	22	60	3	37	0	190	46	149	2	11	1	10	0	2	1	9	8	454	7	229	8	21	1	25	1	39	2203		

P: Part-time; F: Full-time

\*\* Other paramedical Personnel: Anesthesia & radiotherapy technicians, etc.

## **6 Ambulatory health care services**

### **6.1 Health centers distribution**

Twenty health centers were surveyed (Table 17). Eight centers from the north of the city (4 in Kufr Aqab, 3 in Beit Hanina, and 1 in Shufat) were selected. In addition, six centers from the middle of the city (including 2 Sheikh Jarrah, and one each of Bab-Ezahreh, Sultan Suliman, Musrarah, Ein Lozeh, and Thouri) and 5 from the south of Jerusalem (including 2 in Beit Safafa and one each of Um Toba, Sur Baher, and Jabal Mukabir) were selected. All centers run by contractors except Sheikh Jarrah/ Clalit A & B, Almajad, Tahan and SurBaher are directly under the administration of Clalit Health services.

### **6.2 Health centers working days and hours**

In the north of the city all health centers work at least 6 days from Saturday to Thursday 8:00-22:00, 4 of them also work half day on Fridays. In the middle of the city, 5 health centers work 6 days per week Saturday or Sunday to Thursday 8:00-18:00, 2 centers work all days of the week from 8:00-22:00 and 8:00-18:00 on Fridays. In the south of the city, 3 centers work 7 days from 8:00-22:00, 2 centers 7 days and half days on Fridays, and one center works 6 days from 8:00-22:00 (Table 17). This shows that services available in most days of the week for an average of 10 hours per day in all the city areas.

### **6.3 Number of patients**

Health centers were reluctant to provide full data about their activities and number of actual patients utilizing their services. Most of the centers provided a proximate average number of patients daily. The reported number of patients attending health care centers to receive services range between 40 to 300 patients daily depending on the type of services provided (Table 17).

### **6.4 Type of services provided**

- **General medicine or family medicine, gynecology and obstetrics, nutrition & dietetic and emergency care services** during daytime are available (100%) in all health centers in all areas of the city (Table 18).
- **Diagnostic services** such as **laboratory (100%)** available in all health centers and **radiology** available in (95%) of the centers in all areas of the city.

- **Preventive health care** (health education, vaccination, etc.), dietetics and nutrition, pharmacy, radiology (x-ray) ultrasound, are available in most of the health centers (90%) in all areas.
- **Post-surgery services** (follow up after surgery) as well as **physiotherapy and rehabilitation services** are less frequently available (55%) in the health centers survey in all the areas.
- **Psychiatry and counselling** services are available only in 40% of the health centers in the city. North of the city is the least served, only 25% of the clinics (2 out of 8) provides psychiatry and counselling services.

## 6.5 Specialized medical services provided

Table 19 shows the distribution of specialized clinics by health centers in each city area. The availability of medical specialist clinic at least once a week for at least one hour by the city area can be summarized as follows:

- **Gynecology and obstetrics** services as previously mentioned are provided by health centers in all the City areas.
- **Orthopedics** services are highly available in most centers in all areas of the city. They are available in 7/8 centers in the north, 7/7 centers in the middle, and 3/5 centers in the south of the City.
- **Ophthalmology (eye)** services are available in 5/8 centers in the north, 4/7 centers in the middle, and 2/5 centers in the south of the City.
- **Ear nose thought (ENT)** services are available in 3/8 centers in the north, 7/7 centers in the middle, and 3/5 centers in the south of the City.
- **General surgery** services are available in 2/8 centers in the north, 7/7 centers in the middle, and 4/5 centers in the south of the city.
- **Diabetes and endocrinology** services are available in 7/8 centers in the north, 4/7 centers in the middle, and 2/5 centers in the south of the City.
- **Dermatology** services are available in 6/8 centers in the north, 4/7 centers in the middle, and 4/5 centers in the south of the city.
- **Internal medicine** services are available in 3/8 centers in the north, 2/7 centers in the middle, and 1/5 centers in the south of the city.
- **Cardiovascular** services are available in 5/8 centers in the north, 6/7 centers in the middle, and 3/5 centers in the south of the city.
- **Urology/ kidney** services are available in 3/8 centers in the north, 3/7 centers in the middle, and 0/5 centers in the south of the city.
- **Pulmonology** services are available in 2/8 centers in the north, 3/7 centers in the middle, and 0/5 centers in the south of the city.

- **Pediatrics** services are available in 4/8 centers in the north, 4/7 centers in the middle, and 3/5 centers in the south of the city.
- **Neurology** services are available in 1/8 centers in the north, 2/7 centers in the middle, and 1/5 centers in the south of the city.
- **Oncology/palliative** services are available in 0/8 centers in the north, 3/7 centers in the middle, and 0/5 centers in the south of the city.
- **Plastic surgery** services are available in 1/8 centers in the north, 1/7 centers in the middle, and 0/5 centers in the south of the city.

## 6.6 Use of information technology in health centers

The use of information technology and internet in the health centers were assessed (Table 20). The results can be summarized as follows:

- **90% (18/20 center) of the centers have patient electronic medical records system.**
- **95% (19/20 center) of the centers have a functioning and updated website.** This means that patients can access their websites and learn about the services provided and new development in the center.
- **80% (16/20 center) of the centers provide internet services for patients, and 85% (17/20 center) of the centers provide internet services for their personnel.** The availability of the internet can facilitate communication of patients and personnel.

## 6.7 Health centers personnel

The number and the contract bases of the personnel categories in the surveyed health centers are provided in Table 21.

A total of 633 personnel are working in the surveyed health centers; 60% (426) full time and 40% (237) are part-time personnel. It is worth noting that due to shortages of some categories, especially specialist physicians, they tend to work in more than one health centers and hospitals. It is difficult to estimate the real numbers of available human resources as data was collected anonymously. The categories of health workers and the percentage of full timers as follows:

- |   |   |
|---|---|
| - Nurses 70%                                  | - Administrative and support staff 72%    |
| - Laboratory technicians 90%                  | - Radiology technicians 70%               |
| - General practitioners/Family physicians 70% | - Specialists physicians 30%              |
| - Social workers 30%                          | - Rehabilitation and Physiotherapists 50% |
| - Psychiatrists/counsellor 30%                | - Nutritionist/dietician 30%              |

The figures show infer shortages or need for specialist physicians in many fields of medicine, psychiatry and counselling, nutritionist and dieticians as well as social workers.

### **6.8 Patients' referral to hospital**

The administrators of the health centers were asked to report destinations of patient referrals for hospital services (Table 22). The majority of the surveyed centers (85%) reported referring patients in the first place to Israeli hospitals in the city to Hadassah Mount Scopus, Hadassah Ein Karem, and Shaare Zedek. In the second-place centers refer patients to Palestinian hospitals in Jerusalem with priority to St. Joseph hospital (70%), then Makassed (65%), then to August Victoria (25%), St. John Ophthalmic (10%) and Red Crescent Maternity Hospital (5%). Two centers one in the north and one in the middle indicated that they refer patients also to Palestinian hospitals in the West Bank.

### **6.9 Quality and patient safety systems**

All of the health centers have quality and patient safety programs in place, mainly the IMOH requirements, except for one center introducing the JCI standards (Table 23). In addition to that, the majority (15) of the surveyed centers (75%) follows the Israeli Sick Fund (ISF) patient files monitoring and evaluation requirements.

### **6.10 Staff training and development**

Staff development activities reported by center administrators showed that 9 (45%) of the centers indicated that their staff participate in continuous medical education activities as well as seminars, and training on IMOH treatment protocols and guidelines, primary care and screening services (Table 23).

### **6.11 Challenges facing centers and patients**

The key challenges for centers and patients and reported by the administrators of the centers are provided in Table 24.

Challenges for centers: The key challenge for the centers reported by 8 administrators (40% of participants) is the high competition for patients due to the large number of centers in the same and close market. The second challenge reported by 6 administrators (30%) is the difficulty in satisfying patients and responding to their expectations. This is highly prevalent in the north of the city centers, reported by 5 of 8 administrators (62.5%). The

third challenge is the lack of parking areas reported by 5 participants (25%), in fact highly reported by the centers in the middle of the city. Similar rank was given to the lack of patient awareness of operations and compliance to treatment and routine tests and follow up especially patients with chronic diseases, this was reported by 5 participants (25%) in all locations. The location challenge was especially highlighted by three (15%) centers in the middle of the city, whereas maintaining high quality services and meeting patients' needs because of the Israeli Ministry of Health (IMOH) regulations were also highlighted by 3 (15%) centers. Finally, the difficulties of transportation and delays of patients through checkpoints was reported by one center (10%) in the north of the city.

Challenges for patients: The challenges facing patients as reported by center administrators are summarized in Table 16. The key challenge for patients is long waiting for appointment and similarly for getting administrative approval of ISF on certain services such as MRI, each of these were reported by 6 administrators (30%) of health centers, relevant to that the waiting time to receive services was reported by 10% of participants. The waiting time issues were mainly reported by administrators of centers located in the middle of the city. The second challenge is referral of patients to centers far from them and the language barrier when receiving services in Israeli institutions reported by 4 administrators (20%) of health centers 3 of them in the north of the city. The difficulty in reaching the center for patients with disability was especially reported by 2 centers (10%) in the middle of the city. Finally, limited clinic space and enough seats for waiting patients was reported in one center located also in the middle of the city.

Table 17: Information of the surveyed health centers

Health center	Ownership/ contract	Location	Work days	Hours daily	Av. Daily number of patients
Sama Medical Centre (North)	ISF	Beit Hanina	Sat- Thurs	8:00-22:00	300
Hayat Beit Hanin (North)	ISF	Beit Hanina	Sat- Thurs	8:00-22:00	200
Bayan-Medical (North)	ISF	KufurAqab	Sat- Thurs	8:00-23:00	150-250
Sama Medical (North)	ISF	KufurAqab	Sat- Thurs Friday	10:00-20:00 15:00-22:00	150
Shifa-Centre (North)	ISF	KufurAqab	Sat-Fri	8:00-22:00	200
Makabi-Shufat (North)	ISF	Shufat	Sat-Thurs Friday	8:00-22:00 15:00-22:00	200
Tahan-Beit Hanina (North)	ISF, Clalit	Beit Hanina	Sat-Thurs Friday	8:00-18:00 8:00-11:30	50
Red Crescent (North)	NGO	KufurAqab	Sat-Thurs	8:00-18:00	20
Jerusalem Zahreh (Middle)	ISF	Bab-Zahera	Sat-Thurs	8:00-22:00	200
Hayat-Sheik-Jarah (Middle)	ISF	ShiekhJarrah	Sat-Thurs	8:00-22:00	300
Sheikh Jarrah/ Clalit A&B (Middle)	ISF- Clalit	Sheikh Jarrah	Sun-Thurs.	7:30-19:00	320
AlmajadMusrarah (Middle)	ISF, Clalit	Musrarah	Sun-Thurs. Friday Saturday	7:00-20:00 8:00-11:30 8:00-16:00	225
Ein Lozeh (Middle)	ISF	Ein Lozeh	Sat-Thurs	8:00-22:00	150
Thouri (Middle)	ISF	Thouri	Sat-Fri	8:00-22:00	100
Arab Health Center (Middle)	NGO	Sultan Sulaiman	Sat-Thurs	8:00:18:00	15
Razi Medical (South)	ISF	J. Mukabir	Sat-Fri	8:00-22:00	70-90
Um Toba (South)	ISF	Um Toba	Sat-Friday	8:00-22:00	40
Al-Rahman (South)	ISF	Beit Safafa	Sun-Thurs Sat-Friday	8:00-22:00 16:00-22:00	100
Abdallah Sheikh (South)	ISF	Beit Safafa	Sat-Thurs	8:00-21:00	50
ClalitSurbaher (South)	ISF	Sur Baher	Sat-Friday	7:30-22:00	200-250

ISF: Israeli sickness fund; IMOH: Israeli Ministry of Health; NGO: Nongovernmental Organization.

Table 18: Type of services provided by the health centers, 2019

Health Centre	Nutrition & dietetics services	Dental care	Pharmacy	Ultrasound services	Radiology services	Laboratory services	Physiotherapy & rehabilitation	Emergency care	Psychiatry / Counselling	Postsurgical care	General medicine	Preventive care (promotion, education, screening, vaccinations)	Gynae & Obstetrics
Sama Medical Centre (North)	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hayat Beit Hanin (North)	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Bayan-Medical (North)	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
Sama Medical (North)	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
Shifa-Centre (North)	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
Makabi-Shufat (North)		✓			✓	✓	✓	✓		✓	✓		✓
Tahan-Beit Hanina (North)			✓			✓		✓			✓	✓	✓
Red Crescent (North)			✓	✓	✓	✓		✓			✓		✓
Jerusalem Zahreh (Middle)	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓
Hayat-Sheik-Jarah (Middle)	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Sheikh Jarah Clalit A&B (Middle)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Almajad Musrarah (Middle)			✓			✓			✓		✓	✓	✓
Ein Lozeh (Middle)	✓	✓		✓	✓	✓	✓	✓			✓	✓	✓
Thouri (Middle)	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
Arab Health Center-Jadid (Middle)		✓			✓	✓		✓	✓	✓	✓		
Razi Medical (South)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Um Toba (South)	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Al-Rahman (South)	✓	✓			✓	✓		✓			✓	✓	✓
Abdallah Sheikh (South)	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
Clalit Sur Baher (South)					✓	✓		✓	✓	✓	✓	✓	✓

Table 19: Type of specialized medical services provided at the health centers (No of days per week: weekly hours), 2019

Health Centre	ENT	Ophthalmology	General Surgery	Orthopedics	Gynecology &Obstetrics	Endocrinology/ diabetes	Dermatology	Internal medicine/ gastro enterology	Cardio-vascular	Urology/ kidney	Pulmonology	Pediatrics	Neurology	Oncology/palliative	Plastic surgery
Sama Medical Centre (North)	2:8	1:3	1:2	1:4	2:6	1:3	1:4	2:8	1:3	1:3	1:3	6:24			
Hayat Beit Hanina (North)		2:6		2:8	5:20	1:4						6:72			
Bayan-Medical (North)				3:6	5:15	1:3	3:9		1:3			6:72			
Sama Medical (North)	1:4	1:3		2:5	4:12	1:2	1:3	2:4	1:2	1:3		4:48			
Shifa-Centre (North)		7:21		1:3	4:12	1:3	1:3			1:3		7:98			7:35
Makabi-Shufat (North)	1:2	1:2	1:2	1:6	3:12	1:3	1:3	1:2	1:5		1:2				
Tahan-Beit Hanina (North)				1:3	3:8	1:2	1:1		1:3				1:2		
Red Crescent (North)					1:6										
Jerusalem Zahreh (Middle)	2:4	1:2	1:2	3:6	6:30	1:2			1:2	1:2		6:42			
Hayat-Sheik-Jarah (Middle)	2:6	2:7	2:4	3:9	2:6	2:12		3:12	2:6	1:2	2:4	5:35	2:8	1:3	
Sheikh Jarah Clalit A&B (Middle)	5:19	6:30	5:24	5:20	4:16	5:35	5:23	1:4	1:4	4:18	3:9	6:48	4:16	1:4	6:11
Almajad Musrarah (Middle)	1:2			1:3	3:12		1:2		1:2		1:1	7:78		1:2	
Ein Lozeh (Middle)	1:1			1:2	5:10		1:1		1:1						
Thouri (Middle)	1:2			1:2	6:24	1:2	1:2		1:2			5:20			
Arab Health Center-Jadid (Middle)	1:2	1:2		1:2	3:2		1:3								
Razi Medical (South)			1:1	1:3	4:12	1:3	1:2	1:2				6:30	1:2		
Um Toba (South)		1:3	1:2	1:2	2:6		1:1					5:25			
Al-Rahman (South)	1:3		1:2	2:3	2:5				1:3			3:9			
Abdallah Sheikh (South)	1:2				1:2	1:2	1:2		1:1						
Clalit Sur Baher (South)	2:2	1:2.5		2:4	5:10		1:3		2:4						

Table 20: Health centers' health information and communication system status 2019

Health Centre	Patient electronic medical records system	Centre functioning and updated website	Free internet connection for personnel	Internet / online services for patients
1. Sama Medical Centre (North)	✓	✓	✓	
2. Hayat Beit Hanin (North)	✓	✓	✓	
3. Bayan-Medical I(North)	✓	✓	✓	✓
4. Sama Medical (North)	✓	✓	✓	✓
5. Shifa-Centre (North)	✓	✓	✓	✓
6. Makabi-Shufat (North)	✓	✓	✓	✓
7. Tahan-Beit Hanina (North)	✓	✓	✓	✓
8. Red Crescent (North)	✓	✓	✓	✓
9. Jerusalem Zahreh (Middle)		✓		
10. Hayat-Sheik-Jarah (Middle)		✓		✓
11. Sheikh Jarah Clalit A&B (Middle)	✓	✓	✓	✓
12. AlmajadMusrarah (Middle)	✓	✓	✓	✓
13. Ein Lozeh (Middle)	✓	✓	✓	✓
14. Thouri (Middle)	✓	✓	✓	✓
15. Arab Health Center-Jadid (Middle)	✓		✓	✓
16. Razi Medical (South)	✓	✓		
17. Um Toba (South)	✓	✓	✓	✓
18. Al-Rahman (South)	✓	✓	✓	✓
19. Abdallah Sheikh (South)	✓	✓	✓	✓
20. Clalit Sur Baher (South)	✓	✓	✓	✓

Table 21: Health centers personnel by category 2019

Health Centre	Nurses/ midwives		Admin/ support services		Laboratory technicians		Radiology technician		General practitioner		Specialist physician		Social workers		Physiotherapy & rehabilitation.		Counselor/ psychotherapist		Nutritionist / dietician		Total	
	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F
Sama Medical Centre (North)	0	5	0	3	0	2	0	3	0	5	0	12	0	1	0	1	0	1	0	1	0	34
Hayat Beit Hanin (North)	2	6	0	5	0	1	1	2	2	3	5	0	1	0	0	1	0	1	0	1	0	30
Bayan-Medical (North)	0	9	0	8	0	1	0	3	6	6	14	0	0	0	0	0	0	0	0	1	0	48
Sama Medical (North)	0	6	0	11	0	2	0	3	2	4	1	0	1	0	3	0	0	1	1	1	0	35
Shifa-Centre (North)	0	10	0	12	0	1	0	4	0	14	15	0	0	0	0	0	0	0	0	1	0	57
Makabi-Shufat (North)	5	0	0	5	0	2	4	1	0	4	13	0	0	0	2	0	0	1	0	1	0	37
Tahan-Beit Hanina (North)	0	3	0	2	0	1	0	0	0	4	0	6	0	0	0	0	0	0	0	1	0	17
Red Crescent (North)	0	3	0	1	1	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	11
Jerusalem Zahreh (Middle)	0	7	0	3	0	3	1	2	0	10	13	1	0	0	1	0	0	1	0	1	0	42
Hayat-Sheik-Jarah (Middle)	2	4	0	14	0	8	0	5	5	0	24	0	1	0	1	2	3	0	3	0	0	72
Sheikh JarahClalit A&B (Middle)	5	0	1	4	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	16
Almajad Musrarah (Middle)	2	2	0	3	0	0	0	0	1	1	0	8	0	0	0	0	0	0	0	1	0	18
Ein Lozeh (Middle)	3	3	3	3	1	1	0	1	3	2	7	0	0	0	0	1	0	0	0	1	0	29
Thouri (Middle)	0	4	0	5	0	1	0	2	0	5	0	7	0	0	0	0	0	0	0	1	0	25
Arab Health Center-Jadid (Middle)	1	5	2	5	2	5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Razi Medical (South)	2	2	0	9	1	0	4	0	14	0	17	0	1	0	3	0	1	0	1	0	0	55
Um Toba (South)	2	2	2	2	0	1	0	1	1	2	0	8	0	0	0	0	0	0	1	0	0	22
Al-Rahman (South)	0	4	1	3	0	1	4	1	4	2	6	0	0	0	0	0	0	0	0	1	0	27
Abdallah Sheikh (South)	2	3	1	4	0	2	0	3	0	0	1	0	1	0	1	0	0	0	1	0	0	19
Clalit Sur Baher (South)	3	7	0	6	0	4	0	3	0	12	0	10	0	0	0	0	0	1	0	1	0	47
Total	29	85	10	108	5	38	14	37	38	83	115	53	4	2	8	7	5	2	9	11	663	

P: Part-time; F: Full-time

Table 22: Hospital referral to hospitals by centers

Health Centre	Scopus	Hadassah Mt Karem	Hadassah Ein Karem	ShaareZedek	St. Joseph	Makassed	Augusta Victoria	St John	Red Crescent	All EJ hospitals according to needs	All Israeli hospitals West Bank and EJ
North of the city	7	7	7	6	5	4	1	1			1
Middle of the city	5	5	5	4	4	0	0	0	1		1
South of the city	5	5	5	4	4	1	1				
Overall	17	17	17	14	13	5	2	1	1		2

Table 23: Quality and patient safety program and staff development initiatives implemented by centers

Health Center	Quality and patient safety(IMoH, JCI)	ISF patient files monitoring& evaluation meetings	Staff training, seminars &orientation on guidelines
North of the city centers	7+1 JCI	7	4
Middle of the city centers	7	6	3
South of the city centers	5	2	2
Overall	20	15	9

Table 24: Administration perception of challenges and obstacles that face centers and patients

Health center location	Centers		Patients									
North of the city	3	0	3	0	3	0	3	0	3	0	3	0
Middle of the city	0	4	3	1	3	0	3	1	0	3	1	2
South of the city	2	1	2	0	0	0	1	0	1	0	2	0
Total frequencies	5	5	8	6	3	3	2	3	1	4	6	2

# 7 Rehabilitation & physiotherapy services

## 7.1 Surveyed rehabilitation centers and locations

There are six specialized centers/institutions for rehabilitation and physiotherapy in EJ (Table 25). These are Jerusalem Princess Basma Rehabilitation Centre (JPBRC), Elwyn- El Quds,Healing Hands Center, Specialty Center, Horizon Center and Rand Institution. For the purpose of this study, four centers agreed to participate in the survey. The aim is to assess their services capacities, utilization patterns (access to services and waiting time, etc.), hindering factors and challenges that face institutions and their customers.

**Location:** Two of the surveyed physiotherapy centers were in the middle and one in the north, and one in the south of EJ. Number of outpatients receiving services in the centers ranged from 600 to 6000 annually.

**Centers working days and hours:** all the surveyed centers work 5-6 days per week with an average of 10 hours a day. Three centers provide services to adult clients (18years and above) and one for children under 18years old (Table 25).

Table 25: Information of the surveyed health centers

Center	Ownership	Location	Work days	Hours daily	Client's age	Total patients/ users 2018
Princess Basma Center	NGO	Middle of Jerusalem	Sun-Thr	8-16	Under 18years	759
Healing Hands	Private Contracted with ISF	Middle of Jerusalem	Sat-Thr	8-19	18 years and above	5.000
Specialty	Private Contracted with ISF	North of Jerusalem	Sat-Thr	8:30-18:30	18 years and above	6.000
Horizon Center-Clalit	Private Contracted with ISF	South of Jerusalem	Sat- Fri	8-20	18years and above	600

## 7.2 Type of cases treated by the rehabilitation centers

The Jerusalem Princess Basma Rehabilitation Center (JPBRC) is a center that provides rehabilitation services for children with disabilities. The center

treats various kinds of disabilities, including brain injury and cerebral palsy, neuromuscular diseases, pediatric limb deficiencies, congenital malformations, post-musculoskeletal traumas, autism, and ADHD. Moreover, the Center has services for children with learning disabilities, and with hearing problems (Table 26).

Two physiotherapy centers for adults provide therapy for cases of neurological and muscular diseases and one for congenital malformations, one for cases with skeletal muscle injuries and one for cerebral vascular accidents (CVA).

Table 26: Type of cases treated in the health centers, 2019

Rehabilitation Centre	Children with ADHD	Children with learning disabilities	Children with autism	Children with hearing problems	Children with limb defect	Cases of brain injury (CVA)	Cases of psychological disorders	Cases of neurological and muscular diseases	Congenital malformations	Skeletal muscle injuries
1. Princess Basma Center	✓	✓	✓	✓	✓	✓	X	✓	✓	✓
2. Healing Hands	X	X	X	X	X	X	X	X	X	✓
3. Specialty Center	X	X	X	X	X	X	X	✓	✓	X
4. Horizon Center	X	X	X	X	X	✓	X	✓	X	X

### 7.3 Types of services provided by the rehabilitation centers

The children rehabilitation center provides services to their clients based on health situations with the following therapies: physiotherapy, speech and language therapy, occupational therapy, hydrotherapy, sensory therapy, music therapy, recreational therapy, and psychosocial support. Besides, this center provides educational rehabilitation, psychosocial support services, mothers empowerment program, community-based rehabilitation, Sign language and Braille training, residential services for children and their mothers who hold West Bank ID, vocational training workshop and inclusive high school for East Jerusalem ID holders. The school serves around 430 students from the kindergarten to Tawjhi level and the percentage of disabled children equals 38% of students.

On the other hand, one of the adult physiotherapy centers provides rehabilitation & physiotherapy and community-based rehabilitation services, the other has rehabilitation, physiotherapy, and sensory treatment, and one center has physiotherapy only Table 27.

Table 27: Type of treatment & rehabilitation services provided by the health centers

Rehabilitation Centers	Physiotherapy	Occupational therapy	Hydrotherapy	Sensory treatment	Music therapy	Recreational therapy	Speech /Audio therapy	Rehabilitation therapy	Educational rehabilitation	Psychological counseling	Psychosocial Support	Mothers Empowerment Program
1. Princess Basma Center*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Healing Hands	✓	X	X	X	X	X	X	✓	X	X	X	X
3. Specialty Center	✓	X	X	X	X	X	X	X	X	X	X	X
4. Horizon Center	✓	X	X	✓	X	X	X	✓	X	X	X	X

\*PBRC offers additional services such as special education in mainstream, Sign language, Braille training Community based rehabilitation occupational workshops, and residential services.

## 7.4 Health personnel

The number and the contract bases of the personnel categories in the surveyed health centers are provided in Table 28. Only 39 personnel reported working in the surveyed physiotherapy and rehabilitation centers; 82% (32) full timer and 18% (7) are part-timer. It is worth noting that some therapists work in more than one center. It is difficult to estimate the real number as data was collected anonymously. The categories of health workers and percentage of full-timers are as follow:

- Physiotherapists 68%
- Occupational therapist 9%
- Recreational therapist 3%
- Speech Therapist 13%
- Rehabilitation 3%
- Social workers 9%

Table 28 shows shortage in all categories of physiotherapy and rehabilitation centers personnel. One critical issue that faces rehabilitation services is

the constant shortage and the high turnover of skilled human resources. As in other parts of the world, this stems from the fact that the majority of these rehabilitation professionals are women: some work only part time, some leave after having children and some leave the profession altogether.

According to the statistics of the Palestinian Physiotherapy Association “PPTA”, the registered number of the Bachelor holders in physiotherapy is about 1200 physiotherapists (graduated from local Palestinian Universities or from other regional and international universities) with an annual increase rate of about 100 physiotherapists. The number of Master and Ph.D. degree holders in Physiotherapy does not exceed 10.

Table 28: Physiotherapy and rehabilitation personnel by category 2019

Health Centre	Physiotherapist		Occupational therapist		Recreational therapist		Rehabilitation Therapist		Special Education specialist		Speech Therapist		Social workers		Psychologist	
	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F
Princess Basma	1	3	1	3	-	1		1*			2	3	2		1	
Healing Hands	2	8														
Specialty Center		7														
Horizon Center-Clalit		4														

\* The medical director is the rehabilitation therapist.

### 7.5 Challenges and obstacles that face rehabilitation centers

The main challenges that face the centers are: Most patients are referred from ISF and they are entitled for 12 sessions only according to IMoH policy (75%), lack of financial resources for the provision of effective services(50%), delay in referring patients for physiotherapy and rehabilitation centers, waiting for approval of ISF administration (50%), and delay in patients arrival to the sessions which leads to overlapping in patients appointments (50%). Moreover, the other challenges were difficulty in getting Israeli permit to patients and staff to enter Jerusalem (25%), location of the center is far for patients’ place of residence (25%) and lack of equipment (25%) (Table 29).

Table 29: Challenges and obstacles that face rehabilitation centers

Challenges	Princess Basma Center	Healing Hands	Specialty Center	Horizon Center
Financial problem	✓	✓		
Difficulty in getting Israeli permit to patients and staff to enter Jerusalem	✓			
Delay in tests and diagnosis due to Bureaucratic Israeli system	✓			
Most of patients are referred from ISF and they are entitled for 12 sessions only according to IMoH policy		✓	✓	✓
Delay in referring patients and waiting for approval of ISF administration			✓	✓
Delay in patient's arrival to the sessions which leads to overlapping in patients' appointments			✓	✓
Lack of equipment			✓	
Location of the center is far for patients place of residence			✓	

## 7.6 Quality programs and licensing of rehabilitation centers

The studied rehabilitation and physiotherapy centers in EJ vary in relation to the implemented quality programs and authority licensing/ registration of their services. Table 30 shows that PBRC has the Joint Commission International Accreditation (JCIA) and registration in the Palestinian Ministry of Health and Israeli Ministry of Justice. Healing Hands & Specialty centers are registered from Israeli Ministry of Justice and Horizon from Israeli Ministry of Labor and Social Development. All centers apply occupational and safety measures as set by Israeli Ministry of Health and PBRC and Healing Hands have continuous education and orientation for new staff regarding quality and safety issues.

Table 30: Quality programs and licensing of rehabilitation centers

	Princess Basma Center	Healing Hands	Specialty Center	Horizon Center
JCI	✓			
Palestinian Ministry of Health	✓			
Israeli Ministry of Justice	✓	✓	✓	
CME & orientation for new staff	✓	✓		
Occupational safety measures	✓	✓	✓	✓
Israeli Ministry of Labor and Social Development				✓

### 7.7 Future plans for development and new services

The services that the rehabilitation centers planned for in the next five years are different. JPBRC is looking forward to improving Autism services and Healing Hands to add occupational therapy to their services. However, Horizon is looking for rehabilitation and hydrotherapy and the Specialty center is planning to improve working conditions by increasing the number of qualified staff, purchasing advanced equipment, tools and machines for assessment and therapy and improving the appointment system (Table 31).

Table 31: The services that the rehabilitation center planned for in the next five years

	Princess Basma Center	Healing Hands	Specialty Center	Horizon Center
Autism services	✓			
Occupational therapy		✓		
Increase number of qualified staff			✓	
Purchase advanced equipment & machines			✓	
Improve appointment system			✓	
Rehabilitation services				✓
Hydrotherapy				✓

# 8. Mental Health Services

## 8.1 Centers’ survey and locations

The ambulatory mental health services are provided by Israeli Sick Funds, governmental health clinics that are affiliated with mental health medical centers, and private centers that sell its services to the Israeli Ministry of Health.

In East Jerusalem, there are six specialized psychological centers: Four Arab run centers; Palestinian Counseling Center, Spafford Children Center, Hadi Center for Support and Counseling, and Al-Majd for Psychological Counseling and one Israeli in East Jerusalem (Hadasah Mount Scopus) and two main centers in West Jerusalem (Natan&Hadasah-Ein Karim) that serve as counseling centers. For the purpose of this study, four centers were selected and agreed to participate; three from East and one from West Jerusalem to assess services capacities, utilization patterns, hindering factors and challenges that face institutions and their customers.

**Patient load:** The average number of clients who seek services from the mental health centers varies, and it ranges from 15to 50 clients per day.

**Centers working days and hours:** all the surveyed centers operate 5-6 days per week with an average of 8 hours a day. Two centers are affiliated with Israeli Ministry of Health, one non-governmental, and one is a private center contracted by ISF (Table 32).

Table 32: Information of the surveyed mental health centers

Name of the center	Ownership Affiliation	Location	Work days	Hours daily	Av. Daily No. of patients/ users
Natan for Psychological Counseling	IMOH	Jafa Street	Sun-Thr	8:30-16:00	30
Hadi for Support & Counseling	IMOH	Beit Hanina	Sat-Thr	8:30-18:00 Except Mon 8:30-16:00	25
Palestinian Counseling Center	NGO	Beit Hanina	Sat & Mon-Thr	9:00-17:00	50
Majd Psychological Clinic	Private	Shiek Jarah	Sun-Thr	8:00-17:00	15

## 8.2 Type of services provided

All surveyed centers offer counseling and psychological health promotion and awareness. Moreover, three centers provide individual therapy and training on psychological counseling and one gives group therapy as shown in (Table 33).

Table 33: Type of services provided by the mental health centers

Centre	Psychological counseling	Individual therapy	Group therapy	Psychological health promotion and awareness	Training on psychological counseling
1. Natan for Psychological Counseling	✓	✓	x	✓	✓
2. Hadee for Support & Counseling	✓	x	x	✓	x
3. Palestinian Counseling Center	✓	✓	x	✓	✓
4. Majd Clinic for Psychological Counseling	✓	✓	✓	✓	✓

## 8.3 Mental health centers personnel

The number and the contract bases of the personnel categories in the surveyed health centers are provided in table 34. A total of 226 personnel reported working in the surveyed counseling centers; 27% (62) full-timer and 73% (164) are part-timer.

The majority of psychological counseling personnel (157) 93% are working in the center located in West Jerusalem which serves both Arab and Jews population. The categories of psychological counseling personnel and percentage of full-timers are as follow:

### Psychological counselor31%.

- Social worker 39%.
- Psychiatric nurses 0% all of them part-timers.
- Psychiatricians 50%.
- General Nurse15%.

The figures show shortage in all categories of psychological health centers personnel.

Table 34: Health Centre personnel by category 2019

Health Center	Psychological counselor		Social worker		Psychiatric nurse		Psychiatrics		General Nurse		Professional Supervisor		Total
	P	F	P	F	P	F	P	F	P	F	P	F	F+P
Natan for Psychological Counseling	57	21	13	7	43	-	3	1	11	-	-	1	157
Hadee for Support & Counseling	-	1	2	2	-	-	-	-	-	-	-	-	5
Palestinian Counseling Center	10	5	25	15	-	-	-	-	-	-	-	-	55
Al-Majd Clinic for Psychological Counseling	-	3	-	2	-	-	-	2	-	2	-	-	9
Total	67	30	40	26	43		3	3	11	2	-	1	226

## 8.4 Type of services provided

All centers provide services to their clients who suffer from psychological tension, low mood, stress, panic disorder, depression, family problems, bipolar disorder and posttraumatic syndrome disorder (PTSD) (Table 35). Three centers offer services for clients who suffer from eating related issues, anger, interpersonal problems, generalized anxiety, bereavement, psychosomatic problems and rehabilitation support. In addition, one center is dealing with drug use and two with drug addiction. It is worth noting that drug addiction services remained under IMOH Health groups (Aviram & Azary-Viesel, 2018) because of that the centers not affiliated with IMoH are not allowed to offer this service. Moreover, drug addiction treatment, rehabilitation, prevention and enforcement need the collaboration of different ministries and non-governmental organizations.

Table 35: Type of health conditions treated at the center

Health Centre	Depression	Psychological Tension	Low Mood	Stress	Eating related issues	Interpersonal problems	Panic disorders	Anger	Bipolar disorder	Drug using	Drug Addiction	Rehabilitation support	Generalized anxiety disorder	Bereavement	Psychosomatic problems	PTSD	Family problems
Natan for Psychological Counseling	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hadee for Support & Counseling	✓	✓	✓	✓	X	X	✓	X	✓	X	✓	✓	X	X	X	✓	✓
Palestinian Counseling Center	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	✓	✓	✓	✓	✓	✓
Al-Majd Clinic for Counseling	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	✓	✓	✓	✓	✓

### 8.5 Challenges and obstacles that face mental health centers

All surveyed centers indicated that the main challenge is the lack of people participation in center activities because they are afraid of stigmatization and the lack of awareness of the importance of seeking services and psychological support (Table 36). Other challenges facing the centers are lack of awareness of some official institutions to the importance of family support groups, lack of people awareness of their psychological health rights, lack of people acceptance of psychological counseling and treatment and lack of psychiatrists who speak Arabic language. In addition, there are some obstacles related to the system and structure such as ISF requirements for patients' referral, fear of the educated people from losing the right to get a job if registered as a psychiatric patient at the Ministry of Health. Moreover, location and structure of the center are not suitable for clients counseling and this is related to inability of the center to rent a better place due to high costs for renting and taxes (Arnona).

Table 36: Challenges and obstacles that face mental health centers

	Natan for Psychological Counseling	Hadee for Support & Counseling	Palestinian Counseling Center	Al-Majd Clinic
Lack of people participation in center activities because they afraid of stigma	✓	✓	✓	✓
Lack of awareness of some official institutions to the importance of family support group		✓		
Lack of people awareness to the importance of seeking services and support	✓	✓	✓	✓
Lack of people awareness to their psychological health rights	✓			
Lack of people acceptance of psychological counseling and treatment	✓			
High cost of renting and Arnona (Taxes)			✓	
Location & structure of the center are not suitable				✓
ISF requirements				✓
Lack of Psychiatric who speak Arabic language	✓			✓
Fear of the educated people from losing the right to get a job if registered as a psychiatric patient at the Ministry of Health	✓			

## 8.6 Type of programs/services planned for the next 5 years

All the surveyed counseling centers are accredited and regulated by IMoH. All the surveyed centers within 5 years would like to incorporate services/programs as shown in Table 37. All the centers are planning to conduct raising awareness workshops regarding mental health in EJ. Two centers would like to work on programs for protection of women and children. Two centers would like to organize activities to reach out to a larger number of people. One center wants to develop an empowerment program for youth

age 14-20 and for volunteers. Moreover, one center would like to work on improvement of patients' accessibility to the services through decreasing waiting appointment time and the agreement conditions with ISF especially patients' referrals and decrease of prescribed medications costs. It is worth mentioning that the average duration of ambulatory mental health treatment is nine sessions (encounters) per adult and 12 encounters per child. Moreover, drug addictions services, remained under IMOH Health groups (Aviram & Azary-Viesel,2018).

Table 37: Types of programs/services planned for the next 5 years

Health Centre	Programs/services in the upcoming 5 years
1. Natan for Psychological Counseling	<ul style="list-style-type: none"> <li>• Raising awareness workshops regarding mental health in EJ</li> <li>• Reaching out to a larger number of patients in EJ and provide quality services</li> </ul>
2. Hadee for Support & Counseling	<ul style="list-style-type: none"> <li>• Organizing more sustainable activities to reach out to a larger number of people.</li> <li>• Programs for protection of women and children.</li> <li>• Raising awareness workshops regarding mental health in EJ</li> </ul>
3. Palestinian Counseling Center	<ul style="list-style-type: none"> <li>• Programs for protection of women and children.</li> <li>• Raising awareness workshops regarding mental health in EJ</li> <li>• Empowerment programs for youth age 14-20</li> <li>• Empowerment program for volunteers</li> </ul>
4. Al-Majd Clinic for Psychological Counseling	<ul style="list-style-type: none"> <li>• Improvement of patients' accessibility to the services through decreasing waiting appointment time.</li> <li>• Improve the agreement conditions with ISF especially patient's referral and decrease of prescribed medications costs</li> <li>• Raising awareness workshops regarding mental health in EJ</li> </ul>

## 9 Patients Satisfaction

### 9.1 Introduction

Satisfaction as a concept is the affective judgment on the health services provided and formed by the patient (LaVela, 2014). Customer satisfaction is a known concept and is applied in management of healthcare organizations and it is playing an important role in quality of care reforms and health-care delivery in many countries. Customer satisfaction studies are challenged by the lack of a uniform definition or instrument; some studies examine patient satisfaction with the quality of healthcare, while other studies examine patient satisfaction with the health system generally (Bleich et. al, 2009).

There are numerous reasons to measure patient satisfaction, like patients' satisfaction being the objective of the healthcare provider; this gives us data about the structure, process and outcome, and another reason is that satisfied and dissatisfied patients have various behavioral intentions. For instance, satisfied patients are more compliant with the treatment plan, have more intention to use the services in the future and recommend the healthcare provider to others (Boudreaux & O'Hea, 2004). Moreover, the measurement of patient satisfaction is an important and legitimate indicator, and it is mandated by accreditation systems.

The patient satisfaction measure has become an acceptable tool for the evaluation of the quality program and health services provided, adding to that the patient's needs and preferences being a valuable issue in the health system (Almeida et al., 2015). Patient-centered care is individualized care or focus on the patients through providing the services needed with respect to his or her values and beliefs (Sack et al., 2010). This respect builds trust in the provider-patient relationship (Widmar, 2012), and focuses on the person himself, not only on his illness and treatment (Sack et al., 2010).

Patient satisfaction helps in healthcare market build up (Ajarmeh and Hashem, 2015). Recently, the competition between healthcare providers in many countries has become more intense, which made the concern for quality grow until it became the cornerstone of marketing strategies. This means that healthcare organizations provide excellent services to their patients to increase their market share because happier patients recommend these organizations to their families and friends (Ajarmeh and Hashem, 2015). The patient's safety and clinical effectiveness, according to Doyle (2012), have a positive impact on his experiences.

## 9.2 Socio-demographic characteristics of the participants

Three hundred patients filled the questionnaire out of 330 approached. Sixty percent of the respondents were from the ISF health centers, 17% from the EJ hospitals, 10% from counselling centers, 9% rehabilitation centers, and 4% are from NGOs health centers (Table 38).

Table 38: Distribution of respondents according to service providers

	Frequency	%
EJ Hospital (5 hospitals)	50	17.0
Israeli Sick Funds (Clalit, Muehedet, Maccabi, Leumit) (18 center)	180	60.0
Counseling centers (Healing Hands, Specialty, ISF Clalit & Leumit Centers)	30	10.0
Rehabilitation centers (3 centers)	27	9.0
NGOs centers (Arab Health Center-Jadid and Red Crescent)	13	4.0
Total	300	100.0

Table 39 shows that the high majority (97.4%) of the participants have the Israeli health Insurance because East Jerusalemmites are obligatory insured by National Israeli Insurance since 1995. The National Health Insurance Law (1995) requires the healthcare system to provide equitable, high-quality health services to all residents. However, UNRWA, PMoH and private insurance, covers 2.3% of the respondents and 0.3% are not covered by any kind of insurance.

Table 39: Distribution of respondents by type of insurance

	Frequency	Percent
IHI	265	88.4
IHI & Private	15	5.0
IHI & UNRWA	10	3.3
PMoH	4	1.3
Private	2	0.7
IHI & PMOH	2	0.7
PMoH & UNRWA	1	0.3
Without health insurance	1	0.3
Total	300	100.0

IHI: Israeli health Insurance

The average age of the respondents was 36.4 years (with a standard deviation of 14. 2). Table 40 shows that 42% were between 18-30 years old, 52% between 31-64 years, 5% between 65-102 years.

Table 40: Age categories of the respondents

Age Category	Frequency	Percent
18-30 years	126	42.0
31-64 years	157	52.0
65-102	15	5.0
Missing	2	1.0
Total	300	100.0

The results show that the percentage of females from the total sample was 56%, while 44% were males as shown in Table (41). The percentage of females is higher because Red Crescent Maternity Hospital and center customers are females.

Table 41: Distribution of respondents by gender

Gender	Frequency	Percent
Male	131	44.0
Female	169	56.0
Total	300	100.0

The sample was distributed according to their place of residency as the following: 34% from north of EJ (Beit Hanina, Shufat, Kufr Aqb), 43% from middle of EJ (Tur, Suaneh, Esaweh, Wadi Juz, Ras Al-Amoud, Silwan, AbuTur, Old city) and 23% from south of EJ ( Mukaber, Em Tuba, Sur Baher, Beit Safafa) as shown in Table 42.

Table 42: Distribution of respondents by place of residency

Place of residence	Frequency	Percent
Middle	130	43.0
North	102	34.0
South	68	23.0
Total	300	100.0

### 9.3 Reasons for attending health centers

The participants were asked to indicate the reason for attending the health centers in the last visit. Table 43 shows that 26% of the respondents their last visits were for check-up and laboratory and diagnostic tests while nineteen percent for orthopedic conditions including accidents and injuries. Fourteen percent visited the healthcare institution for obstetrics and gynecology reasons, while 11% for chronic cases such as endocrine, cardiovascular and oncology and 10% for psychological conditions. Moreover, the results table

43 indicates that the last visit of the respondents were due to acute cases (ENT, UTI, Flu, Allergy, Poisoning, etc.), surgery, check-up post-surgery and nutritional consultations were 8%, 7%,4%, and 1% respectively.

Table 43: Distribution of the reasons of last visit to the healthcare institution.

	Frequency	Percent
Check-up, diagnostic & medical test	79	26.0
Orthopedic condition	56	19.0
Obstetrics & Gynecology	42	14.0
Chronic disease	33	11.0
Psychological condition	30	10.0
Acute cases	25	8.0
Surgery	20	7.0
Check-up post-surgery	11	4.0
Nutrition consultation	3	1.0
Total	300	100.0

### 9.4 Type of referrals

Table 44 shows that 51.8% of the respondents decided to visit the healthcare institutions by themselves and 2% had previous appointment. The percentage of the respondents who were referred by physicians, centers, and hospitals were 37%, 6.7%, 2.7% respectively.

Table 44: Distribution of respondents by type of referral

Referral type	Frequency	Percent
Myself	155	51.8
Physician	111	37.0
Center	20	6.7
Hospital	8	2.7
Previous appointment	6	2.0
Total	300	100.0

### 9.5 Satisfaction level of health services

The participants were asked to indicate the degree of satisfaction of the services received at the health institutions. Table 45 shows that 63% of the respondents were satisfied with healthcare while 30% moderately satisfied and 7% are not satisfied.

Table 45: Distribution of respondents according to the level of satisfaction

Satisfaction level	Frequency	Percent
Satisfied	190	63.0
Moderately Satisfied	89	30.0
Not Satisfied	21	7.0
Total	300	100.0

## 9.6 Patient preferences of receiving hospital care

Patients were asked where they prefer hospital care and why. Table 46 indicates that 63% of the respondents prefer to be treated in Israeli hospitals while 31% prefer Arab hospitals and 6%, they have no preference.

Table 46: Distribution of respondents according to hospital preference

Hospital preference	Frequency	Percent
Israeli Hospital	188	63.0
Arab Hospital	93	31.0
No preference (Both)	19	6.0
Total	300	100

The reasons for selecting the Israeli hospitals by 63% of the respondents were 23% high quality of services, 21% professionalism of the hospital staff and 19% comprehensiveness of services. Moreover, 17% of the respondents revealed the availability of advanced technology and diagnostic equipment, 13% feeling safe from malpractice and 12% cleanliness of the hospitals. In addition, 7% indicated the presence of highly qualified specialists and 6% clearness administrative system procedures as shown in table 47.

Table 47: Reasons of respondents' preference of Israeli hospitals (N=188)

Reasons	Frequency	Percent
High quality of services	43	23.0
Professional manner of staff (humane, follow-up, provide information and explanation, social counseling, maintain privacy and confidentiality)	39	21.0
Comprehensive services	36	19.0
Advanced technology & diagnostic equipment	32	17.0
Feeling safe (previous bad experience & malpractice consequences in Arabic hospital & in emergency cases)	25	13.0
Cleanliness	22	12.0
Highly qualified specialists	14	7.0
Clear administrative system procedures	11	6.0

The reasons for selecting the Arab hospitals (Table 48) were: 51% communication and understanding/ no language barrier, 30% staff respect of patient religion and traditions, 16% proximity to place of residence, 12% quality of services, 9% professional manner of staff, 9% long waiting time at Israeli hospitals. This is clearly reasonable because appropriate medical care depends on clear communication between healthcare provider and patient.

Table 48: Reasons of respondents’ preference of Arab hospitals (N=93)

Preference of Arab hospitals	Frequency	Percent
Communication & understanding (no Language barrier)	47	51.0
Respect of patient religion and traditions	20	30.0
Near place of residence	15	16.0
Quality of services	11	12.0
Professional manner of staff (humane, follow-up, provide information and explanation)	8	9.0
Long waiting time in emergency department and long appointment time for operations in Israeli hospitals	8	9.0

### 9.7 Challenges facing patients in EJ health institutions

The main challenge that face patients in EJ health care institutions includes, (34%) reported long appointment waiting time for referral form for specialists, nutritionists, hospital referral, diagnostic service and physiotherapy. Sometimes, patients have to pay for the service out of pockets. Fifteen percent complained about moving from one center to another to get the requested services such as lab tests, specialized services, diagnostic services such as MRI, Ultrasound, Enzymes tested. Moreover, 14% of the respondents suffered from each of the following challenges: long waiting time to get the service, locations of healthcare institutions (No parking, far from the main road, difficult transportation to other centers) and language barrier when referred to Israeli institutions. Although, Arabic is an official language in East Jerusalem and other parts of the occupied Palestine according to the Article 82 of The Palestine Order-in-Council (1922). Moreover, the Palestinian Arabs are a nation under occupation, and therefore the occupation is obliged to protect their rights to culture, religion and language, in line with article 27 of the International Covenant on Civil and Political Rights. The use of Arabic language in Israeli healthcare institutions is still inferior in all its forms; written and spoken.

In addition, many official health related forms policies and instructions are not translated to Arabic.

In addition, 13% of the respondents experienced poor customer services due to lack of staff, poor communication, dealing with them in unprofessional ways, no follow-up on patient complaints, no clear directions given from administrative staff on how to reach Israeli institutions in case of referral and lack of patient respect. Eleven percent complained from high price or unavailability of medications in the centers they are treated in, and 10% from long waiting time for the test results because of unavailability of all tests in the contracted ISF centers). About 9.5% complained about the shift in healthcare institutions' orientation toward serving the patients toward business-oriented services (No patient physical examinations and physicians main concern is on filling patient complaints on computers, direction toward saving money for the centers). Seven percent suffer from long waiting time at checkpoints, 4% from lack of continuity of services for example family physician is not the same for each patient; each visit the patient is seen by different physicians, and 4% complained from lack of communication, sharing information and patient education as seen in table 49.

It is worth indicating that 32.3% of the patients interviewed in the north of the city centers indicated that they do not face any problems, compared to 25.4% in the middle and 26.8% in the south of EJ.

Table 49: Challenges that face patients in health institutions in East Jerusalem (N=209)

Challenges for patients	North	Middle	South	Frequency (%)
Long appointment waiting time for referral form	11	25	10	72 (34%)
Moving from one center to another to get the service	11	11	10	31(15%)
Long waiting time to get the service	7	17	6	30 (14%)
Healthcare institutions location	16	9	4	29 (14%)
Language barrier when referred to Israeli institutions	21	8	0	29 (14%)
Poor customer services	7	10	10	27 (13%)
High price or unavailability of medications in the center	6	13	3	22 (11%)
Long waiting time for the test results	15	3	3	21 (10%)
Business oriented healthcare services	7	9	4	20 (9.5%)
Long waiting time at checkpoints	16	0	0	16 (7%)
Lack of continuity of service	5	2	2	9 (4%)
lack of communication, sharing information and patient education	5	2	2	9 (4%)

### 9.8 Patient reported health needs in EJ

Participants were asked about their health needs and expectations in EJ health institutions. Table 50 shows the respondents would like the centers to increase the number of qualified medical specialists or to increase specialists' hours of work in the following specialty; orthopedic and ophthalmology in the middle and neurology, orthopedic, endocrinology, pediatrics, ophthalmology and surgery in north and south of EJ. Moreover, 8.7% indicate the need to increase the number of administrative staff, laboratory and X-ray technologists especially in the evening. Seventeen percent of the respondents indicated the need for comprehensive diagnostic services (Laboratory tests, imaging including ultrasound, CT, MRI). Fourteen percent of the respondents indicate the need for psychological counseling centers and point out that the existing centers lack qualified psychologists, and diagnostic tests and 9% indicate the need for physiotherapy services including hydrotherapy, rehabilitation, speech and audio therapy. In addition, Table 50 shows the need for mother and child health care (MCH) & infertility (IVF) services (9%), dentistry services, 24 hours emergency services and patient transfer ambulances, ophthalmic services 8.7% each. It is worth mentioning here that in the EJ, there are only 6 "Tipat Halav" (infant healthcare) stations operated by the Ministry of Health, and a seventh station in Kufr Aqab that is operated by a private contractor. In WJ, the Ministry of Health operates 26 Tipat Halav stations, 3 of which are designated also for the Palestinian population.

Table 50: Health related needs as reported by patients (N=183)

Health needs	North	Middle	South	Frequency (%)
Increase number of qualified medical specialists	12	16	12	40 (22%)
Provision of comprehensive diagnostic services (Lab & imaging).	11	11	10	31 (17%)
Psychological counseling services	7	12	6	25(14%)
Physiotherapy services e.g. hydrotherapy, speech and audio therapy	7	3	8	17 (9%)
Mother and child care & IVF services	7	4	6	17 (9%)
Dentistry services	2	10	4	16 (8.7%)
Increase number of personnel in the centers (Admin staff, Lab and X-ray technologist especially in the evening shifts)	5	8	3	16 (8.7%)
Ophthalmic services	7	4	5	16 (8.7%)
24 hours emergency services (include Ambulance services)	8	4	4	16 (8.7)

## 9.9 Limitations

There are several constraints faced by the researchers in collecting the data. The main limitations were:

- Lack of IMoH approval to conduct interviews with some administrative and key personnel in health institutions.
- Some health centers refused to participate in the study for political reasons.
- Some health centers managers were reluctant to share detailed information about the centers. Therefore, some data were incomplete.

## 10 Conclusions and Recommendations

A sectoral development plan 2017-2022 was developed for East Jerusalem in 2018 (Jerusalem Affairs Unit, 2018). The implementation of the health programs and the evaluation of achievement towards established goals and objectives require adequate information. This study has been commissioned in order to secure adequate information that can be used in policymaking, planning and evaluation.

The household results shows that the two main health problems among adults are diabetes (4.32%), and cardio-vascular and hypertension (2.84%). The residents of the old city are with the worst health conditions among localities of East Jerusalem, where about 19.7% indicated having a health problem mainly due to chronic diseases followed by Kufr Aqab with 13.6% indicated having health problems. This requires the promotion of quality preventive services in these populated areas to promote health wellbeing of the population, diagnose diseases early, reduce risk factors, and manage complications. In addition to the establishment of dietary and lifestyle changes programs and improving access to healthcare.

The prevalence of smoking tobacco among adults above 18 years old was 29.0% and among children 1.4%. The highest percentage of smoking is reported in Sur Bahir and Um Toba (33.8%), then Old City 32%. There should be well organized and goal directed raising awareness activities for children and adults about smoking danger on their health and community. Moreover, healthcare providers have a great role in promoting smoking cessation by patients. According to WHO, helping patients quit tobacco as part of primary care providers' routine practice takes them only three to five minutes and is feasible, effective and efficient.

The results show that the majority of respondents believed that drug abuse is a common social problem and more than 50% thought that drug trading and/or abuse is taking place inside or near their neighborhood. In-depth study about the causal/contributing factors to drug use in EJ will help in developing strategies to fight this social problem. Moreover, there is an urgent need to develop comprehensive, treatment and rehabilitation programs in EJ for dealing with drug abuse people.

Tertiary hospital services in EJ hospitals are major part of the Palestinian health care system and are well developed in terms of specialty and level of care with recognized quality standards. More than 300 thousand visits to the outpatient and emergency departments were reported in 2018. The main share of inpatient services is provided to patients referred from the

West Bank and Gaza Strip (about 38 thousand referrals in 2018). Generally, EJ hospitals work with high capacity reaching bed occupancy rate of 90%. One to two weeks of waiting times for inpatient services indicates a high need for more beds in main EJ hospitals (Makassed, Augusta Victoria, St. Joseph).

Valid and comprehensive information about health personnel in the EJ health sector is lacking. Health professionals are working in more than one healthcare institution, which makes it difficult to make proper judgment about needs. We infer from the data collected shortages in many medical specialties and psychotherapy and counselling. Only 45% of the centers indicated that their staff participate in continuous medical education activities, which shows the need for staff training and development.

On the contrary, of hospital care, the ambulatory health services (primary care) are shaped by the Israeli health care system with the ISF responsible for providing care to residents of EJ covered by the Israeli health insurance system. Many private health centers contracted or affiliated with the ISF provide general medical services and secondary level- medical specialty ambulatory services. The Palestinian private organizations contracted by ISF contribute to provision of health services to Palestinians in EJ. Twenty health centers in all locations of the City (north, middle, south) were included in the study to assess services provided in EJ. Services in general are available in most of the days of the week for an average of 10 hours per day in all the city areas. Most of the health centers mainly provide general medicine, preventive services, and essential diagnostic laboratory and X-ray services. With some divergence, the centers provide specialized medical consultations especially in gynecology & obstetrics, orthopedics, ENT, diabetes & endocrinology.

About 40% of the workers (633 personnel) in the health centers are part-time employed. Some health professionals, especially physicians, work in more than one center, which makes it difficult to make proper judgments about needs.

The key challenge facing health care centers is the high competition to keep their patients due to the large number of centers in the same and close market. Moreover, the differences between insurance packages offered by ISFs encourage clients to switch between the centers. In addition, by law any person can transfer from one ISF to another and may move again if he/she wishes to after 6 months has elapsed from the last date of moving (<https://www.kolzhut.org.il/ar>).

Rehabilitation services need more development in East Jerusalem. Future plans reported by centers address some of these needed services such as autism services, occupational therapy besides developing equipment and infrastructure of the health centers. Meanwhile, there is a high need for qualified personnel in the various fields of physiotherapy and rehabilitation to provide services for patients who suffer from neurology, orthopedic, cardiopulmonary. Moreover, there is a need to create opportunities for continuing professional development for physiotherapy practitioners who are employed in the field of physiotherapy and rehabilitation.

Another area that needs improvement is the quality of physiotherapy and rehabilitation services by having advanced equipment, tools and machines for diagnostic and therapeutic purposes. Key challenges reported in the physiotherapy and rehabilitation sector are the long time for getting an appointment to receive services due to the bureaucratic/ administrative process of approvals for patient care besides the lack of financial resources for the provision of effective services.

Mental health is another area of critical need for the EJ population. Since 2015, hospital and ambulatory mental health services responsibility transferred to the health funds (Aviram & Azary-Viesel, 2018). Although most counseling and psychiatric services are provided by public healthcare centers (ISF & ISF contractors), the results show that only 40% (8 centers) provide psychological counseling and they employ 2 full time and 5 part time counselors. Therefore, it seems in the majority of the centers that social workers or family doctors provide the counseling services. It is worth noting here that family doctors are unprepared or unable to accept responsibility for this task: they lack a sufficient level of knowledge, and they do not have enough time allocated per patient to enable them to deal properly with the needs of people with mental illness. In general, the health funds, NGOs and private clinics deal only with the "soft psychiatry" cases (Aviram & Azary-Viesel, 2018).

Moreover, mental health services are not distributed equally among all of the regions and among the various population groups. The accessibility and availability of psychological therapy and counselling services in EJ are still weak. Moreover, stigmatization of people with mental health problems in the Arab culture needs to be addressed. This forms a social and cultural barrier for people with need to seek care. A priority area in EJ would be raising awareness of people through different means and activities on mental health services and addressing the stigma issue.

Another barrier is the lack of psychiatrists who speak Arabic language. In the literature, it is cited that language may affect health and illness, the use of healthcare services, morbidity rates and patterns, and a number of other health indicators. In addition, it is crucial for treating patients with psychological or mental problems to be able to converse with them and identify the cultural concepts that influence them. Therefore, employing Arabic speaking counselors and psychiatrists is crucial. Another area that needs attention is improving accessibility to mental services through decreasing long appointment time and improving the referral process.

With regard to satisfaction of the patients from the services received in EJ health intuitions (hospital, health centers, mental, and rehabilitation care), the results shows that two thirds of the respondents were satisfied with healthcare, while 30% moderately satisfied and only 7% were not satisfied at all from the services. In addition, two-thirds (63%) prefer to be treated in Israeli hospitals compared to 31% prefer Arab hospitals. This is related to availability of advanced capacities/technologies, qualifications and professional manner of staff and better quality of services available in Israeli institutions. The main reasons for preferring Arab hospitals was for the easy communication and respect for patients' religion and traditions. Therefore, Arab hospitals in their plans should concentrate on developing the capacity of staff and the use of new diagnostics treatment technologies.

Patients indicated that besides language and communication barriers, the other challenge for facing them is long waiting time for getting referral approvals and for receiving health services, this is in line with what was reported by the health institutions. Another challenge is the out of pocket payments for services, which is a barrier for accessibility for the low-income groups. This is a significant problem given that the poverty rate is about 70% in EJ.

Lastly, in line with the health institutions responses the most indicated health needs reported by the participants in the patient survey are the counselling and mental health services, diagnostic services, physiotherapy and rehabilitation services such as hydrotherapy, speech and audio therapy as well as care for mothers and child healthcare. Moreover, respondents indicated the high need for specialized physicians in many areas (e.g. neurology, orthopedic, endocrinology, pediatrics, ophthalmology and surgery).

## 11 References

- Ajarmah, B. S. and T. N. Hashem (2015). "Patient Satisfaction Evaluation on Hospitals; Comparison Study between Accredited and Non-accredited Hospitals in Jordan." *European Scientific Journal* 11(32).
- Almeida, R. S. D., Bourliataux-Lajoie, S., & Martins, M. (2015). "Satisfaction measurement instruments for healthcare service users: a systematic review." *Cadernos de saude publica* 31(1): 11-25.
- Alyan, N., Sela, R., & Pomerantz, M. Neglect and Suppression in East Jerusalem. The Policies behind Widespread Poverty and Unemployment. The Association of Civil Rights in Israel. 2012. Website: <https://law.acri.org.il/en/wp-content/uploads/2013/03/EastJlem-Poverty-ENG-web.pdf> Accessed 18-10-2019.
- Amir Paz-Fuchs, Ronen Mandelkern, Itzhak Galnoo (editors). *The Privatization of Israel: The Withdrawal of State Responsibility*. Springer, 2018.
- Aviram U., & Azary-Viesel, S. (2018) Mental Health Reform in Israel Challenge and Opportunity Part II: Implementation of the reform- Issues & problems. *Isr J Psychiatry*, Vol. 55 - No 3 Retrieved on 23-Oct. [https://cdn.doctoronly.co.il/2019/02/10\\_Mental-Health-part2.pdf](https://cdn.doctoronly.co.il/2019/02/10_Mental-Health-part2.pdf).
- Aviram U., & Azary-Viesel, S. (2018) Mental Health Reform in Israel: Challenge and Opportunity Part I: Fundamentals of the Reform and the Mental Health Service System on the Eve of the Reform, *Isr J Psychiatry* - Vol. 55 - No 3 Retrieved on 23-Oct. [https://cdn.doctoronly.co.il/2019/02/09\\_Mental-Health-part1-1.pdf](https://cdn.doctoronly.co.il/2019/02/09_Mental-Health-part1-1.pdf)
- Bleich, S. N., Özaltın, E., & Murray, C. J. (2009). "How does satisfaction with the health-care system relate to patient experience?" *Bulletin of the World Health Organization* 87(4): 271-278.
- Boudreaux, E. D. and E. L. O'Hea (2004). "Patient satisfaction in the emergency department: a review of the literature and implications for practice." *The Journal of emergency medicine* 26(1): 13-26.
- Dardas, L., A., & Simmons, L., A. (2015). The stigma of mental illness in Arab families: a concept analysis. Available from: [https://www.researchgate.net/publication/322317590\\_The\\_stigma\\_of\\_mental\\_illness\\_in\\_Arab\\_families\\_a\\_concept\\_analysis](https://www.researchgate.net/publication/322317590_The_stigma_of_mental_illness_in_Arab_families_a_concept_analysis) [accessed Dec 26 2019].
- East Jerusalem 2015: Facts and Figures. Association for Civil Rights in

Israel, May 2015 <https://law.acri.org.il/en/wp-content/uploads/2015/05/EJ-Facts-and-Figures-2015.pdf> accessed on 27-11-2019.

- Elwyn El Quds. Website: <https://www.israeelwyn.org.il/en/elwynelquds> Accessed on 18-11-2019.
- Goldfracht, M. (2019) Clalit Health Services, Israel. News from Israel on quality improvement activities in primary care. <https://equip.woncaeurope.org/national-pages/israel>.
- Israeli Ministry of Health. Recognized Institutions in Israel for Teaching Physiotherapy. Website: <http://www.health.gov.il/English/Services/MedicalAndHealthProfessions/Physiotherapy/Pages/LearningCenters.aspx>. Accessed on 12/9/2019.
- Jawad M, Khader A, Millett C. Differences in tobacco smoking prevalence and frequency between adolescent Palestine refugee and non-refugee populations in Jordan, Lebanon, Syria, and the West Bank: cross-sectional analysis of the Global Youth Tobacco Survey. *Confl Health*. 2016;10:20. DOI: 10.1186/s13031-016-0087-4.
- Choshen, M., Korach, M. & Shemer, D. (2016) Jerusalem: Facts and Trends Jerusalem Institute for policy research. <https://jerusalemstitute.org.il/en/publications/jerusalem-facts-and-trends-2016/> accessed on 12-1-2021
- Keshet, Y., Popper-Giveon, A. Language practice and policy in Israeli hospitals: the case of the Hebrew and Arabic languages. *Isr J Health Policy Res* 8, 58 (2019) doi:10.1186/s13584-019-0331-7
- Korach, M., & Choshen, M. (2019) Jerusalem: Facts and Trends 2019. The State of the City and Changing Trends. Jerusalem Institute for Policy Research. Publication No. 505. [www.jerusalemstitute.org.il/en](http://www.jerusalemstitute.org.il/en) accessed on 12-12-2019.
- LaVela, S. L. and A. Gallan (2014). "Evaluation and measurement of patient experience". *Patient Experience Journal*, 1 (1), 28-36.
- Ministry of Health (MoH). Health Annual Report, Palestine. Palestinian Health Information Centre, 2018.
- Palestinian Central Bureau of Statistics (PCBS). Jerusalem Statistical Yearbook, 2018. <https://oldwebsite.palestine-studies.org/sites/default/files/jq-articles/Pages%20from%20JQ%2076%20-%20PCBS.pdf>

- Palestinian Central Bureau of Statistics (PCBS). Palestinian Population with Disability by Region, Type of locality and Sex, 2017. Website: [http://www.pcbs.gov.ps/Portals/\\_Rainbow/Documents/disability-2018-02E.html](http://www.pcbs.gov.ps/Portals/_Rainbow/Documents/disability-2018-02E.html).
- The 65+ Population in Israel 2018
- [https://brookdale.jdc.org.il/wp-content/uploads/2018/02/MJB-Facts\\_and\\_Figures\\_Elderly-65\\_in\\_Israel-2018\\_English.pdf](https://brookdale.jdc.org.il/wp-content/uploads/2018/02/MJB-Facts_and_Figures_Elderly-65_in_Israel-2018_English.pdf)
- Palestinian Central Bureau of Statistics (PCBS). The Palestinian Multiple Indicator Cluster Survey (MICS) 2014. Website: [www.pcbs.gov.ps/Downloads/book2175.pdf](http://www.pcbs.gov.ps/Downloads/book2175.pdf).
- Palestinian Central Bureau of Statistics. Israeli Settlements in Palestine—Annual Statistical Report 2012, Concepts and Definitions. August 2013.
- Palestinian National Institute of Public Health, Ministry of Health. Illicit Drug Use in Palestine: A Qualitative Investigation, 2017.
- Palestine STEPS Survey 2010–2011. Geneva: World Health Organization; 2011 ([http://www.who.int/ncds/surveillance/steps/Palestine\\_FactSheet\\_2010-11.pdf](http://www.who.int/ncds/surveillance/steps/Palestine_FactSheet_2010-11.pdf), (accessed 22-7-2020).
- Patient Access to Physiotherapy or Physical Therapy Services / Entry Point. Website: <https://www.physio-pedia.com/Israel>. Accessed on 10/11/2019.
- Qunbar, A. (2019). (<https://jerusalem.fnst.org/content/health-care-east-jerusalem> Accessed on 4-11- 2019).
- Rand Institution. Website: <http://www.randins.org.il/1/page-46.html> Accessed on 10-11-2019.
- Sack, C., Lütke, P., Günther, W., Erbel, R., Jöckel, K. H., & Holtmann, G. J.(2010). "Challenging the holy grail of hospital accreditation: A cross sectional study of inpatient satisfaction in the field of cardiology." BMC health services research 10(1): 120.
- Spafford Children's Center. Website: <http://www.spaffordcenter.org/> Accessed on 10-11-2019.
- The Association for Civil rights in Israel. East Jerusalem: Facts and Figures, 2017.
- The Central Bureau of Statistics -Israel (CBS). Statistical Abstract of Israel 2016. Website: [www.cbs.gov.il/reader/shnatonenew\\_site.htm](http://www.cbs.gov.il/reader/shnatonenew_site.htm).

- The Inequality Report The Palestinian Arab Minority in Israel. Adalah – the legal center for Arab minority rights in Israel, 2011. ISBN: 978-965-90512-3-6. Website: [https://www.adalah.org/uploads/oldfiles/upfiles/2011/Adalah\\_The\\_Inequality\\_Report\\_March\\_2011.pdf](https://www.adalah.org/uploads/oldfiles/upfiles/2011/Adalah_The_Inequality_Report_March_2011.pdf). Accessed on 25-11-2019.
- The Palestinian Counseling Center. Website: <http://www.pcc-jer.org/en/about/about-us> Accessed on 8-11-2019.
- Widmar, S. B. (2012). Satisfaction with Patient-Centered Care and Self-Care Education in Left Ventricular Assist Device Patients, Vanderbilt University.
- <https://www.kolzchut.org.il/ar> Accessed on 24-12-2019
- وحدة شؤون القدس ، ديوان الرئاسة الفلسطينية، الخطة الإستراتيجية للتنمية القطاعية 2017-2022 ، 2018.
- WHO, the global health observatory. world of health data
- <https://www.who.int/data/gho/data/indicators> Accessed on 12-1-2021.

# Annex 1

## East Jerusalem Hospitals Survey

- 1. Name of hospital: \_\_\_\_\_
- 2. Number of beds: \_\_\_\_\_
- 3. Number of ambulances available at hospital: \_\_\_\_\_
- 4. Hospital electronic health information and communication system:

	Not available	Partially available (For some services, indicate)	Fully available
Patient electronic medical records system			
Hospital management information system (administrative services)			
Hospital functioning and updated website			
Hospital website with all information about services provided			
Free internet connection for patients and visitors			
Free internet connection for personnel			

5. Hospital utilization statistics please provide the total number for 2018:

Bed number	Bed occupancy rate (%)	Average length of stay	Admissions to hospital	Outpatient clinic visits	Operations	
					Minor	Major
Births	Emergency Dept. visits	Day care visits	Neonate intensive care	Pediatric intensive care	Adult intensive care	

**6. Number and percentage of patients Jerusalem ID holders from total patients 2018:**

	No of Jerusalem ID patients	% of total patients	No of patients referred by MoH
Inpatient admissions			
Outpatient clinic visits			
Births / delivery			
Emergency Dept. visits			
Lab services			
Radiology/ imaging			
Neonate intensive care			
Pediatric intensive care			
Adult ICU			

**7. Average waiting time for main services provided**

Type of service	Admission (Day)	Surgical (Routine) operations (Day)	Emergency room (hour)	Outpatient clinic (hour)	Other (indicate type and time)
Average waiting time to receive services (day/ hours)					

**8. Availability of Radiology & Imaging services**

	X-ray	Ultra Sound	CT scan	MRI imaging	BT scan	Other indicate	Other indicate	Other indicate
Availability (Yes/No)								
Waiting time to receive service (days/ hours)								

**9. Hospital personnel, please provide data about hospital personnel:**

Personnel category	No of Part-time	No of Full-time	Notes
Nurses/ midwives			
Laboratory technicians			
Radiology technicians			
Resident physicians/General practitioners			
Specialist physicians			
Social workers			
Physiotherapy and rehabilitation technicians			
Counselors/ psychotherapy specialist			
Nutritionist			
Administrative services			
Support services			
Other specify .....			
.....			
.....			
.....			

**10. What is the percentage of West Bank workers? Percentage of EJ residents among workers? .....**

**11. Please provide data about medical specialties available at hospitals:**

Medical specialist	Number Full time	Number part-time	Notes

## **Interview with the hospital management**

1. Do you think that EJ hospitals are able or can respond to the needs of EJ people?
2. What are the priority health care services needed (unmet needs) for EJ population?
3. Do you think EJ patients/ residents are well aware of EJ hospital services?
4. What are the hindering factors facing health care institutions in East Jerusalem?
5. What quality and patient safety programs/ initiatives do you have?

# Annex 2

## Questionnaire

### Health Centers Survey – Jerusalem

1. Name of health centre: \_\_\_\_\_

2. The centre is affiliated with:

Israeli Ministry of Health	Palestinian Ministry of Health	NGO
UNRWA	Private centre contracted by Israeli sick funds	Other. Please specify. _____

- Location/Centre’s address: \_\_\_\_\_
- Working days: \_\_\_\_\_
- Daily working hours: \_\_\_\_\_
- Average number of visitors to the centre per day: \_\_\_\_\_  
\_\_\_\_\_
- Number of recipients of services in 2018: \_\_\_\_\_
- Number of ambulances the centre has (if any): \_\_\_\_\_

3. Services provided by the centre:

	Available	N/A
Maternity & childhood		
Preventive health care (health awareness, acquisition of healthy behavior and early detection of diseases, vaccination)		
General medicine		
Surgery		
Counseling		
Psychiatry		
Emergency		
Counseling and physiotherapy		
Lab examinations		
X-ray		
Ultrasound		
Computed tomography		
Pharmaceutical services		
Dentistry		
Dietary counseling		
Other/Please specify		

4. Please fill in the following table on the specialized medical services provided:

	Specialized medical services	Number of working days per week	Number of hours per week
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

5. 5. Info about information system: Please indicate if each of the following is available:

	Available	N/A
1. Automated information system for visitors.		
2. Website for the centre.		
3. On-line service for staff.		
4. On-line service for patients.		

6. Information on staff in the centre:

	Full-time staff	Part-time staff
1. Number of nurses/midwives		
2. Number of administrative staff		
3. Number of lab technicians		
4. Number of x-ray technicians		
5. Number of family physicians/general medicine		
6. Number of specialized doctors		
7. Number of social workers		
8. Number of physiotherapists		
9. Number of counseling and psychotherapy specialists		
10. Number of diet and nutrition specialists		
11. Other/Please specify		

7. Hospitals to which patients are referred by the centre:

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_

8. In your opinion, what are the main challenges the centre is facing?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

9. In your opinion, what are the three main obstacles patients are facing in obtaining services?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

10. What quality/patient safety improvement programs are implemented in the centre/institution?

---

---

---

11. Is the centre licensed? Yes No If the answer is yes, by whom? \_\_\_\_\_

12. What are the services that you wish to provide in the centre in the next five years?

---

---

---

Thank You

# Annex 3

## Questionnaire

### Psychological and Weaning Health Centres - Jerusalem

1. Name of centre: \_\_\_\_\_

2. The centre is affiliated with:

Israeli Ministry of health	Palestinian Ministry of Health	NGO
UNRWA	Private centre contracted by Israeli sick funds	Other/Please specify _____

3. Location/Centre's address: \_\_\_\_\_

4. Working days: \_\_\_\_\_

5. Daily working hours: \_\_\_\_\_

6. Average number of visitors to the centre per day: \_\_\_\_\_

7. Number of recipients of services in 2018: \_\_\_\_\_

8. Services provided by the centre:

	Available	N/A
Psychological counseling		
Individual psychological counseling		
Group therapy		
Psychological health awareness (bulletins, websites, webpage, community activities, etc.)		
Training services (psychological counselors, professional in primary health service centres, social workers, nurses, etc.)		
Other/Please specify		

9. Information on staff working in the centre:

	Full-time staff	Part-time staff
1. Psychological counselors		
2. Social workers		
3. Nurses specialized in psychological health		
4. Psychiatrists		
5. General nurses		
6. General physicians		
7. Other/Please specify		

10. Types of cases centre deals with:

	Yes	No
1. Depression		
2. Stress		
3. Frustration		
4. Anxiety		
5. Nutrition problems (overeating, loss of appetite)		
6. Problems related to interpersonal relationships		
7. Panic disorders		
8. Anger		
9. Bipolar disorders		
10. Drug use		
11. Drug addiction		
12. Support in the rehabilitation phase		
13. General anxiety disorder		
14. Bereavement		
15. Psychosomatic disorders		
16. Post-Traumatic Stress Disorder		
17. Other/Please specify		

11. In your opinion, what are the main challenges the centre is facing?

12. In your opinion, what are the three main obstacles patients are facing in obtaining services?

13. What quality/patient safety improvement programs are implemented in the centre/institution?

14. Is the centre licensed?

Yes ☐

No ☐

If the answer is yes, by whom?

15. What are the services that you wish to provide in the centre in the next five years?

---

---

---

Thank You

## Annex 4

### Questionnaire

#### Survey of Rehabilitation Services in Jerusalem

1. Name of centre: \_\_\_\_\_

2. The centre is affiliated with:

Israeli Ministry of Health	Palestinian Ministry of Health	NGO
UNRWA	Private centre contracted by Israeli sick funds	Other/Please specify _____

3. Location/address of centre/institution: \_\_\_\_\_

4. Working hours: \_\_\_\_\_

5. Daily working hours: \_\_\_\_\_

6. Average number of visitors to the centre/institution per day: \_\_\_\_\_

7. Number of recipients of services holders of Jerusalem ID in 2018: \_\_\_\_\_

8. Services are provided to:

☐ Children (under 18)    ☐ Adults (18-65)    ☐ Elderly (above 65)

9. Types of cases centre/institution deals with:

	Yes	No	Notes
1. Children with ADHD			
2. Children with learning difficulties			
3. Children with autism			
4. Children with hearing impairment			
5. Children with limb deficiencies			
6. Cases of brain injury			
7. Cases of mental disorders			
8. Cases of neuromuscular diseases			
9. congenital anomalies			
10. Skeletal and muscular injuries			
11. Other cases: Please specify			

Treatment and rehabilitation services provided at the centre/institution:

	Yes	No	Notes
1. Physiotherapy			
2. Occupational therapy			
3. Hydrotherapy			
4. Sensory therapy			
5. Music therapy			
6. Recreational therapy			
7. Hearing and speech therapy			
8. Rehabilitation therapy			
9. Rehabilitation and education therapy			
10. Psychological counseling			
11. Other services: Please specify			

10. Other services available at the centre/institution:

	Yes	No	Notes
1. Accommodation section (guests)			
2. Employment section			
3. Department of Orthotics and Prosthetics			
4. community rehabilitation program			
5. Program to integrate the education of children with special needs with healthy children			
6. Teaching of sign language			
7. Training on Braille			
8. Other departments or sections: Please specify			

11. Information on staff working in the centre/institution:

	Full-time staff	Party-time staff
Physiotherapist		
Occupational therapist		
Recreational therapist		
Rehabilitation therapist		
Special Education Specialist		
Speech therapist		
Social worker		
Counseling and Psychotherapy Specialist		
Other: Please specify		

12. In your opinion, what are the main challenges the centre/institution is facing?

---

---

---

13. In your opinion, what are the three main obstacles patients are facing in obtaining services?

---

---

---

14. What quality/patient safety improvement programs are implemented in the centre/institution?

---

15. Is the centre licensed?

Yes ☐

No ☐

If the answer is yes, by whom?

---

16. What are the services that you wish to provide in the centre in the next five years?

---

---

---

Thank You

# Annex 5

## Evaluation of patients’ or clients’ satisfaction and impressions of health services in Jerusalem

Dear clients,

This questionnaire aims to assess the extent of patients’ satisfaction with the health services provided by centres and hospitals in Jerusalem. Please read each question carefully and choose the answer that reflects the real situation. There is no need to mention anything relating to you. We assure you that the answers will be used for scientific research purposes and nothing more.

1	Health centre/hospital				
2	Age				
3	Sex	<input type="checkbox"/> Male		<input type="checkbox"/> Female	
4	Place of residence				
5	Do you have Israeli health insurance>	<input type="checkbox"/> Yes		<input type="checkbox"/> No	
6	Do you have any other health insurance?	<input type="checkbox"/> Private	<input type="checkbox"/> PA	<input type="checkbox"/> UNRWA	<input type="checkbox"/> Other Specify
7	Reason for visiting health centre or hospital (health complaint)?				
8	Did you come in person for treatment?	<input type="checkbox"/> Personal decision		<input type="checkbox"/> Referred by doctor	
		<input type="checkbox"/> Referred by health centre/specify .....		<input type="checkbox"/> Referred by hospital/ specify .....	
9	Are you satisfied with the services provided to you?	<input type="checkbox"/> Yes	<input type="checkbox"/> Average	<input type="checkbox"/> No, why? Specify .....	
10	What are the health services that are unavailable (that you wish to have) in Arab hospitals in Jerusalem?	..... ..... ..... .....			
11	Do you prefer to be treated in Arab or Israeli hospitals? Why?	..... .....			
12	What are the difficulties facing you in obtaining health care in Jerusalem?	..... ..... .....			
13	Any other comments?	.....			

## Annex 6

### Israeli Sick Funds Centres

#### Clalit

1. Beit Safafa Clinic
2. Jabal Al-Mukaber Clinic
3. Sur Baher Clinic
4. Al-Rashid 3 Clinic
5. Old City Clinic
6. Anata Clinic
7. Shufat Clinic
8. Ras Al-Amud Clinic
9. Beit Hanina Khalil Al-Sakakini Clinic 5
10. Beit Hanina Road Clinic
11. Herod's Gate Old City Clinic
12. Al-Imad Al-Tur Centre Sheikh Anbar
13. Al-Yusra Centre in Isawiye
14. Beit Al-Atiba (House of Doctors) - Beit Hanina
15. Clalit Centre Beit Hanina near Baladi Mall
16. Zuaiteer Medical Centre
17. Wadi Al-Joz Centre
18. Ein Al-Loze Specialized Medical Centre Silwan
19. Jabal Al-Mukaber Medical Centre, Dr. Mahmoud Sbeih
20. Al-Bara' Centre Jabal Al-Mukaber
21. Al-Hikma Medical Centre Ras Al-Amud
22. Abdallah Al-Sheikh Centre Ras Al-Amud
23. Al-Majd Clalit Sick Fund
24. Al-Tahhan Centre Near Dahiyet Al-Bareed
25. Bisan Medical Centre Beit Hanina
26. Al-Thori Medical Centre
27. Al-Basma Centre
28. Al-Zahra & Jaber Medical Centres Shufat near Abraj Al-Quds
29. Al-Maqased Medical Centre
30. Jaber Specialized Medical Centre
31. Dar Al-Shifa Centre kafr Aqab
32. Ras Khamis Medical Centre
33. Ala Centre Mount of Olives – Al-Tur
34. Al-Bayan Centre Kafr Aqab
35. Baladna centre Al-Isawiye
36. Wael Arafteh Centre Wadi Al-Joz – Al-Tanoor
37. Clalit Centre Sheikh Jarrah
38. Clalit Centre Damascus Gate
39. Clalit Centre Al-Musrara
40. Al-Nur Medical Centre
41. Al-Aqsa Medical Centre

## **Meuhedet**

1. Al-Rajihi Clinic Beit Hanina
2. Al-Rajihi Clinic Shufat Camp
3. Al-Rajihi Clinic Rashid Al-Balad Street
4. Al-Rajihi Clinic Kafr Aqab
5. Al-Hayat Medical Centre Shufat
6. Al-Hayat Medical centre Beit Hanina
7. Al-Hayat Medical Centre Sheikh Jarrah
8. Al-Hayat Medical Centre Herod's Gate
9. Al-Hayat Medical Centr Ras Al-Amude
10. Al-Hayat Medical Cenrter Kafr Aqab
11. Al-Manar Medical Centre Sur Baher
12. Abdallah Al-Sheikh Clinic Ras Al-Amud
13. Abdallah Al-Sheikh Clinic Silwan
14. Abdallah Al-Sheikh Clinic Beit Safafa
15. Raba Al-Adawiya Mount of Olives Centre
16. Mount of Olive Centre New Road
17. Al-Razi Medical Centre – Jabal Al-Mukaber

## **Leumit**

1. Ibn Sina Medeical Centre Shufat
2. Shufat Camp Centre
3. Beit Hanina Centre
4. Jabal Al-Mukaber Centre
5. Beit Safafa Centre
6. Sur Baher Centre
7. Al-Isawiyye Centre
8. Sama Centre Kafr Aqab
9. Sama Centre Beit Hanina

## **Maccabee**

1. Al-Asfahani Clinic
2. Shufat Clinic
3. Al-Isawiyye Clinic
4. Beit Safafa clinic
5. Um Laysun Clinic
6. Lotus Centre Kafr Aqab
7. Al-Farabi Centre